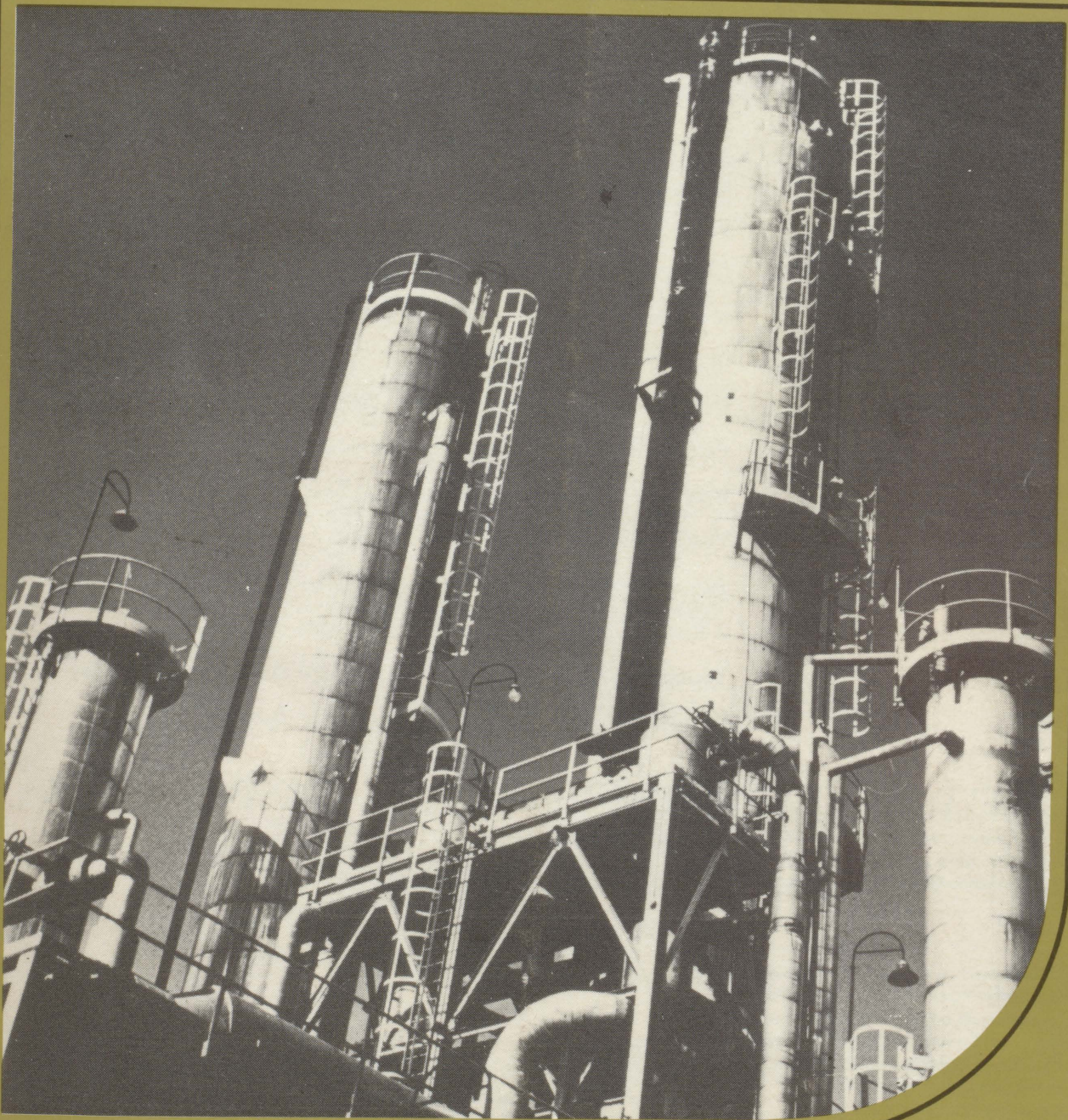


THE MACDONALD JOURNAL

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Cover Story

A modern, slightly abstract approach to photographing the Nitrochem plant at Maitland, Ontario, sets the right tone for a selection of articles of special interest to our agribusiness reader. Harold Blenkhorn, who works for Nitrochem, discusses modern fertilizer use, monoculture, biotechnology, collaboration between business and universities, and other items of current interest. Mr. Blenkhorn enjoyed his days as a student at Macdonald and the extracurricular activities that he feels are a vital part of student life. It has been interesting to note that other writers have also emphasized that a successful career depends on more than getting top marks. We give top marks not only to all our writers for contributing to this issue but also to the host of new subscribers who responded so positively to the flyer sent out to all graduates recently.

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COLLABORATION BETWEEN BUSINESS AND UNIVERSITIES

IT'S A TWO-WAY STREET

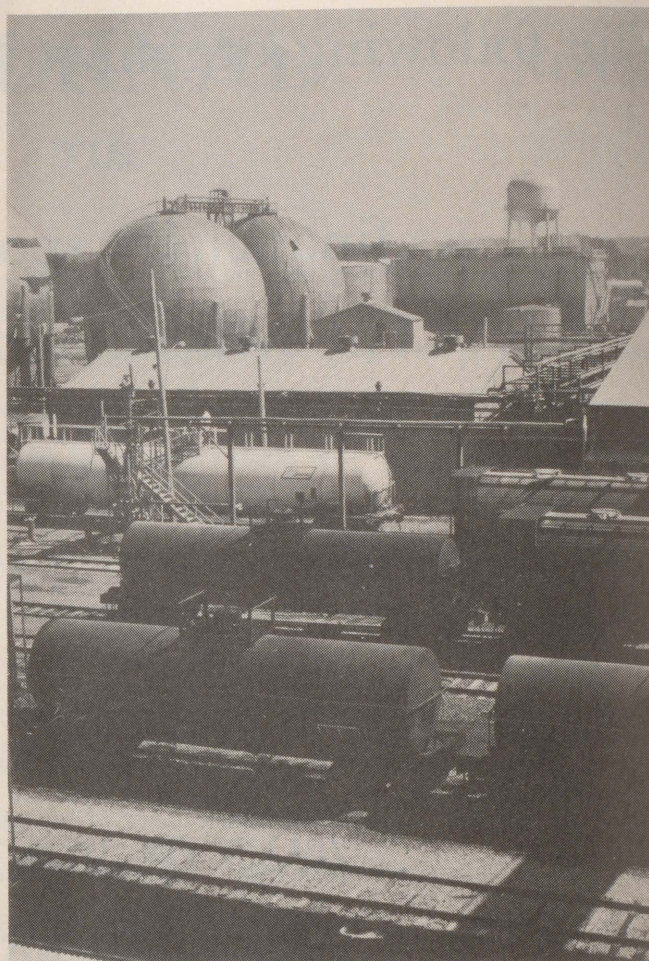
There are advantages and disadvantages to working for a small company but, carefully weighed, the advantages tip the scales in the opinion of Harold Blenkhorn of Beaconsfield, Quebec, who is Manager of Technical Services for Nitrochem Inc. Mr. Blenkhorn feels the frustration of such limiting factors as less money for research and development or for hiring some of the bright young graduates leaving university; on the plus side he feels that big companies can get too structured, that there's more freedom to be an individual. "If asked what you specifically do, you find it difficult to answer because you pitch in and you do what needs to be done." From the Class of '50, Harold Blenkhorn not only enjoys his work but he also enjoys his ties with Macdonald, past and present, and in the past 10 or more years has worked unstintingly for the Macdonald Branch of the McGill Graduates Society. He talked to us recently about his company, his work, and about Macdonald.

"I'm probably one of those rare graduates in that what I do actually relates to what I studied! I took the Agronomy-Soils option, a course which leaned heavily toward Chemistry and after leaving Mac I spent a couple of years with Agriculture Canada in soil fertility research before gravitating into industrial chemistry.

"In 1961 I put my background to good use and joined a newly formed company — then known as Brockville Chemicals (later called Nitrochem) — that had established a plant in Maitland, Ontario, for the manufacture of ammonia and various other nitrogen derivatives which are used partly for industrial purposes and mostly as fertilizers. Since our products are used directly by farmers and widely sold as components of fertilizers, I am largely concerned with fertilizer manufacturing and the agronomic aspects of its end use. I have served a three-year term as industrial representative for eastern Canada on the Expert Committee for Soil Fertility. This is a group of government, university, and industrial agronomists who meet every year to identify areas of concern and recommend research priorities to the

research branch of Agriculture Canada. I am currently serving as chairman of the Fertilizer Industry Round Table, which is an international group of industry representatives who organize a symposium on fertilizer technology, which is held annually in the United States, usually in Washington, D.C.

"Nitrochem was formerly owned by Genstar, but in 1981 a new company was formed with Genstar retaining half ownership and the remaining half owned by four of the company's executives. It's a new entity but still the same company with the same operation and the same people. There are about 200 people at the plant in Maitland and 15 at the head office in Montreal. Our marketing area is largely eastern Ontario, Quebec, the Maritimes, and northeastern United States.

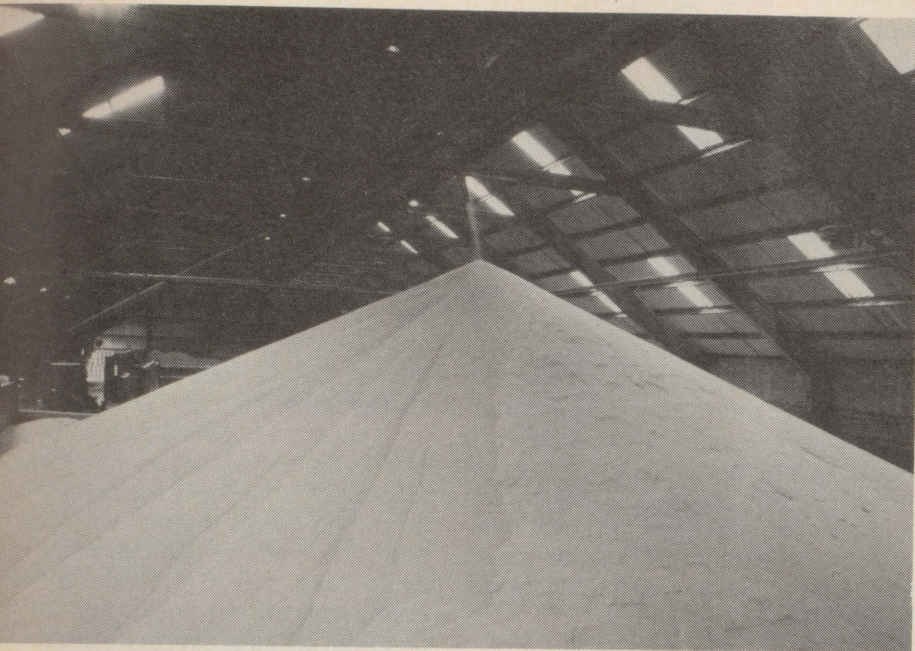


A view of the plant at Maitland, Ontario, with ammonia spheres in the background.

Chemical plants have a natural geographic area in which they operate, limited by their freight rates to their markets and the proximity to other plants. Competition is stiff and of the three nitrogen producers in eastern Canada we are the smallest; however, we do have an advantage in having the most eastern location.

"Being Manager of Technical Services includes many things, and I appreciate my agronomic background because it is my job to know how our products are being used by farmers and also to keep abreast of what researchers are finding concerning the uses of these products and so on.

"I have some contact with farmers though usually in our operation we are a bit remote from the farmer because we don't sell directly to him. Incidentally, Nitrochem is a 50 per cent owner



bulk pile of ammonium nitrate at Maitland.

the mixed fertilizer company Nutrite c., so our products are distributed by is retail fertilizer company.

Fertilizer Use

"Although there is a bit of levelling of now, there was a striking increase in fertilizer use during the period from 1960 to 1975. The reason for that increase in Quebec and Ontario was because of the change in agriculture, and I can sum it up in one word — corn." Corn replaced the grain-over-timothy rotations which prevailed in the past. The farm population has shrunk. It is very interesting to look at farm labour numbers and then look at the decline in oat and hay acreages and at the increase in corn acreage. Corn is a very high energy crop that lends itself to complete mechanization. You don't bend your back; you don't lift any bales. Whether it was a good way for agriculture to go, whether it is right or wrong — that's another story.

"If you look at nitrogen consumption, you will find that it follows the increase in corn acreage. Corn has a very high requirement for nitrogen and fertilizers in general — the use of which has grown pretty well in direct proportion to corn acreage. In Ontario and Quebec corn would likely account for more than half of the overall fertilizer consumption and it would account for perhaps 60 to 70 per cent of the nitrogen consumption.

'Fertilizer consumption in eastern

Canada is still growing but at a slower rate than through the 60s and 70s. Although it fluctuates from year to year, there is still an upward trend of about a three to four per cent annual increase. It is expected that this trend will continue through the 1980s.

"It's amazing how global the fertilizer business is and how what happens in one country has a profound effect upon another. The strength of the American dollar versus the rest of the world has had an adverse effect on exports. This affects the export market for North American produced fertilizer and also our grain exports. We're tied very much to the fortunes of agriculture. When crop prices are good and farm income is up, that's a good time for us. When the opposite is true, that's a very bad time for our industry. Although prices have risen much higher for a good many other farm inputs than for fertilizer, farmers cut back on the use of fertilizers when their income is down.

Monoculture

"I suppose it could be said that the swing to the growing of continuous corn largely keeps a company such as Nitrochem in business. The same could certainly be said about herbicide manufacturers. But I think that monoculture has also kept the farmer in business. I recall reading a book by an American environmentalist who favours the "organic" approach to farming. He maintains that the high

level of productivity which farmers achieve through the use of fertilizers and pesticides is a grand conspiracy perpetrated by agribusiness and university scientists. He specifically mentioned land grant colleges in the U.S.A. as being among the chief offenders, but I suppose he could point the finger to an institution such as Macdonald College and to representatives of agribusiness like me. I disagree with this thesis. We live in a changing world, and, in the case of agriculture, all of those involved in it have to react to the changes which are taking place. There are many reasons why farming trends have gone the way they have. Farmers have been forced to adopt labour-saving systems and are under pressure to increase their productivity. Dairy farming is a prime example. Thirty years ago many farmers would milk 15 to 20 head; now the number of milking cows probably averages between 75 to 100. The energy and roughage to feed these large herds have to be produced on the farm if they are to survive.

"The monoculture of corn has given us a new type of farmer — the cash crop corn grower. Many of our farmers, through choice or necessity, have given up their dairy herds and now devote their land to continuous grain corn. The dairy farmer generates manure to be returned to the land, and to some extent he has the flexibility to grow other crops in rotation with corn, but the cash crop corn grower is largely locked into the monocultural system. In monoculture in recent years it has been found in some areas that certain insect pests are becoming more prevalent and weeds are becoming harder and harder to control. Monoculture also exposes the soil to erosion. I was interested to learn recently that one of Professor Gus Mackenzie's postgraduate students is doing a research project on the interplanting of legumes with corn. This may or may not be the answer to problems arising from monoculture, but I think it is an example of how the research community reacts to problems which result from changing agricultural practices.

Biotechnology

"I think that developments arising from 'high tech' research in plant science will certainly play a part in the future of agriculture and could bring

about changes which, if we could predict what's ahead, would stagger the imagination. To feed the world I think this has to happen. Mankind has a way of doing what it has to do. One possibility that is often mentioned is 'self fertilization' in which crops like corn and cereal grains will use biologically fixed nitrogen in the manner of legumes. Since my livelihood comes from nitrogen fertilizers, I suppose I should be concerned about this, but actually I am not losing too much sleep!

"Dr. Bob Brawn touched on this subject at the Agriculture 2000 Symposia which was held on this campus in 1980. Dr. Brawn reminded us that the world is literally dependent upon cereal grains — three-fourths of the world's food energy comes from eight species of cereal grains and, of this total, three-fourths comes from only three species: wheat, rice, and maize. These crops are bred for intensive cultivation and their genetic potential can only be reached by supplying them with plant nutrients, notably nitrogen. I think it logical to assume that cereal grains as we now know them will continue to feed the world for at least the next generation.

Research and Development

"I wish we could do more but, unfortunately, fertilizers do not provide a high enough margin between cost of production and sales to support very much R&D. A small company such as the one I work for cannot afford to have an R&D group of our own but what is done, if funds are available, is to supply the funding to universities where the expertise is. One example of industry participation is the Potash Phosphate Institute whose member companies pay assessments to a common fund which in turn are dispersed to universities for research.

"I also consider it my job to know what is going on at the various universities, particularly in my own field. It's actually a two-way street. For instance, here at Macdonald I try to keep Professor MacKenzie informed on the latest developments in fertilizer products and supplies, and he keeps me abreast of some of the current research. It is modest but we have been collaborating with Macdonald where and when we can, and this is necessary because the staff of the col-

lege are the people with the know-how to carry out research.

"One other area for more cooperation between business and universities would be to get more people from the universities in on our act. Invite them out into the industrial world for at least a few months. I think that a few professors do live in ivory towers and are quite out of touch with some of the practical aspects of the business world. I know there are soil scientists who are very knowledgeable about the chemistry of the soil but quite ignorant about fertilizers per se — how they are made, what their chemical properties are, what they do and so on. There is a knowledge gap and I certainly think it would be very advantageous for an academic to get out into the real world.

Employment Opportunities

"Speaking for the fertilizer industry collectively, yes, we do in fact use agriculture graduates. A good many of our fertilizer salesmen are agriculture graduates. I might mention that Diploma graduates are widely used as salesmen in all phases of agribusiness: fertilizers, pesticides, seed, hybrid corn, and so on. Like most companies who are having a pretty rough time economically, we are not expanding; we are looking for ways to economize and are just standing pat and not hiring. It is not a situation that we like, but that's the way it is.

"In talking about people being prepared for the job market, there is one thing that worries me in particular, and I wonder how it applies to Macdonald graduates today. I don't know whether the responsibility lies with the high schools or the universities but one defi-

ciency in graduates that stands out is the lack of ability to speak or to write sentences, paragraphs, even a memo! That might sound strange because these people are obviously supposed to be literate and I realize, too, that this is an area that some people are inclined to be good in and others not, but more formal training in communications is needed somewhere along the line. Possibly it is the influence of television from childhood on which makes people rely more on audio visuals rather than on the written word.

"I suppose I soaked up a great deal of scientific knowledge while I was at Macdonald, but really the most important thing I ever learned was how to read. Since you've been given the ability to read, put it to practice. Read good, well-written books and let the beautiful phrases sink in — it is bound to rub off on you.

"As far as studies go, my own area of fertilizer manufacturing, use, and technology is quite a specialized thing that isn't specifically taught in universities, and I'm not sure that it should be. What is needed is to teach the fundamentals of science and the graduate can learn on the job. Equip the students with the basic knowledge that they need to pick these things up. This is true for all universities, I think. A new chemical engineering graduate probably doesn't know much about pulp and paper, but give him a job in that industry and he can become an expert in it. If an agriculture graduate gets a job with a company that manufactures herbicides, his background in chemistry and plant science should enable him to become a specialist in that field. (for Harold Blenkhorn The Student/The Graduate, turn to page 31)

WOODSMEN'S 25TH

Plans are still being finalized for the 25th Intercollegiate Woodsmen Competition which will be held at Macdonald on January 26, 1984. It should be a very special day, and we hope to welcome a good number of visiting teams as well as past woodsmen and woodswomen.

As well, a reunion of Mac woodsmen and woodswomen will be held during the summer of '85, possibly in August, and we hope to notify as many former participants as possible. If you have changed your mailing address or feel that you may not be on the mailing list (it is, unfortunately, not complete), would you get in touch with either John Watson, Coach of the Woodsmen, or Bill Ellyett, Director of Athletics, giving your new address. They do want to get in touch with as many members of the teams of the past 25 years as possible. They would also welcome your suggestions as to a possible date for the reunion and what activities you would like to see included in the program. Why not help to make the Woodsmen Weekend a very special 25th!

Steps to a Successful Career

A summer job may lead to a first job. A graduate may remain with that first company for all his/her working life or that job may be the first step up the ladder to a successful career in another company. For many the first contact between students on Canadian university campuses and employers from across Canada and beyond takes place at the Student Placement Office of Employment and Immigration Canada.

Recently Mrs. Françoise Gillan, Counsellor-in-Charge of the Student Placement Office at Macdonald, talked with Stephen Olive, Registrar, about students and careers.

Steve Olive *Where were you before you came to Macdonald?*

Françoise Gillan In Montreal which is my home town. I worked for five years in personnel recruiting for Catelli Limited before I was asked if I would like to be a Manpower Counsellor. I have been with Manpower and Immigration Canada for 13 years. I first worked at the head office downtown, but when I got married and moved to Pointe Claire, I requested a transfer to the Pointe Claire Manpower Centre. From there I came to Macdonald 10 years ago, in October 1974.

Steve Olive *As soon as the fall term starts you're busy helping students prepare for job interviews.*

Françoise Gillan Yes, we have two briefing sessions, and we have a good turnout of students who sign up for them. The first session is to make the students familiar with all the various forms — proper c.v.'s, resumé's, information on the job market, what the situation was the previous year, what can be expected this year and so on.

The second briefing session is on job interviews and interview techniques. It includes how to get prepared for a specific job, and what employers are looking for in an applicant. We assist the students in job searching in their own specific area of interest and so encourage them to think of alternatives which is very important. If students are too narrow-minded and look only in their specialized fields, they



Françoise Gillan

may not find jobs while there could be lots of opportunities in other areas.

We have just added another feature this year on interview role playing. The first interview, which usually takes about 30 minutes, can sometimes be a bit difficult, and the student may not have another opportunity to see that particular client doing the recruiting; therefore, it is important that the first interview goes well. We are having sessions with the career counsellor from the downtown campus at McGill to build up the student's confidence.

Last year, for example, I had a fantastic student who worked very hard in a briefing session and applied himself well. He did the search on the company and all the other work that should be done before the interview, but during the interview the employer noticed a lack of confidence and the student did not get the job. He came and discussed the problem with me. After counselling he had three job offers from which to choose.

Academic standing is very important but the students have to be able to pass the interview and say who they are and what they can do. Sometimes because of a lack of confidence or too much studying, students do not take part in student activities that can help them tremendously in learning communications skills — either oral or written.

Steve Olive *They have to learn to be their own best salesmen. When I have an interview I would much sooner put the person at ease and let him talk about himself. I know that I'm going to learn a lot more about him faster than*

if I continually ask questions.

Françoise Gillan Many employers let the students take hold of an interview. They are open interviews with the student saying what he has to say and only from time to time will the employer throw in a question or two. When big companies come to interview students they send the technical person in the area where the job is open and the personnel officer. If you have an experienced person in recruiting, the interview can go pretty smoothly. For some medium and smaller companies where the person is not a professional in the area of recruiting, it can be more difficult for them and thus can put a strain on the student.

For all interviews I recommend that the student prepare a written list of questions — if they are not written down he will forget some of them. If the student is prepared, then he has all the highlights that should be covered even if the interviewer doesn't lead him to them.

Steve Olive *I, too, have a checklist though I don't need to write it down. Do you have specific blocks of time during the year for employers coming in or is it a continuous process?*

Françoise Gillan We're open all year. For graduating students the main peak period of hiring is during the academic year. I send out advertising to the employers, and I feel we have a very good listing of some 1,200 right across Canada. The major area is eastern Canada; the most employers are in Quebec, then Ontario which is quite close, and the Maritimes. We have quite a few employers from western Canada who come to recruit here as well as from the States. We also have graduates working in Europe, South America, and elsewhere.

Campus recruiting starts at the beginning of November and ends at the end of November because exams start in December. It starts again mid January and goes until the end of March or even through April because that is budget time and some people who didn't think they had the money to hire may find it available at the last moment.

As well as the employers who use the offices here on campus, we have, throughout the year, individual job requests. Graduates are entitled to our service for a full year after graduation. They should make a point to register with me in order to take advantage of the requests that come in individually. As well employers contact me for immediate openings.

Steve Olive *The student who has planned a trip to Europe as a graduation present can come back to the Student Placement Office and see if there are any openings.*

Françoise Gillan Yes. Employment and Immigration Canada has the same policy for all campuses across Canada, as long as it is within the year after graduation. Even though the number of graduates has tripled in the 10 years I have been here, I have been able to increase the listing of employers from 250 to 1,200. One good thing that I would like to mention is that due to the recession other campuses in the Montreal area have decreased quite a bit in their job placement while this campus has remained stable. We may have gone down very slightly. Even during the worst of '82 and '83 we were quite strong compared to other campuses.

Steve Olive *What proportion of the students who are looking for work — I know some do not plan to go to work immediately — are successful in finding initially a job and, secondly, a job in agriculture?*

Françoise Gillan Generally I would say that those who are persistent and keep at the search sooner or later get a job in their field or in a related area. I firmly believe that it is a matter of time. I had a call yesterday from a girl who graduated in December '83 who had just found a job exactly in her field. Another graduate took a long time because both languages — French and English — were not really that fluent, but that person worked hard and eventually got a job working in an underdeveloped country as a consultant. This brings up another major quality and that is to be willing to be mobile because quite often a graduate will be asked to live in a different area of the province or country, and many of these starting positions can lead to top corporate jobs.

Steve Olive *I do a lot of student recruiting and although the old image of agriculture as a second class career option has nearly gone, students still ask about the chances of getting a job and they're interested in numbers. Would you say two thirds or three quarters regularly get employment fairly soon after graduating?*

Françoise Gillan I'd say that of those who keep searching approximately two thirds do find employment. So much depends on the individual approach. I recall some eight or nine years ago that we had a job opening for a plant science graduate. A female student in environmental biology with a few courses in plant science applied and, a few years back, being female added a little more difficulty. There were lots of male applicants in straight plant science, and they thought that one of them would get the job, but that young woman had top communication skills, a great personality, and was a real dynamo. She stole the job away from those male students, and they couldn't get over it.

We have a university-college placement association for all campuses across Canada with participation by all the major companies, national and international, and placement officers. We have annual meetings — there is one coming up this March — and we discuss various things: job placement programs and how we can provide further help. It has been proven that employers have said over and over again that what they look for mostly in a graduate, regardless of the major, is an open mind and how quickly he can learn to adapt to a new situation. Those are the two major qualities in a graduate. Studies have shown that after a period of five to 10 years most graduates will not be working in their major area of study — they're in management or something else. What one studies is important, but it's just a beginning to a wider scope.

Steve Olive *As we are celebrating the 100th anniversary of women being admitted to McGill, what do you find happening to women in agriculture?*

Françoise Gillan In the 10 years that I have been here there has been a great change in the number of women students in agriculture at Mac. We hardly had any female students in

agricultural sciences and now close to half are women. Employers were a bit hesitant in hiring female graduates as they didn't know how to deal with women in agribusiness. It was not easy. They were concerned with female service representatives who had to travel with mostly male companions. What would the complications be? Farmers — and their wives — also had to get used to female agronomes or sales representatives. It has taken time but now it is a *fait accompli* and there is no problem. Employers are only interested in the best candidate whether it be a male or a female. They have an equal chance of employment. We have graduates who have done well in all situations and have put to rest the fears of the company. One female graduate at Pfizer was rookie of the year for the highest sales. They have really proved themselves.

Nor is there any problem getting them summer work on farms. We've been told that the females work harder than their male counterparts in many instances.

Steve Olive *The girls seem to have a better rapport with farm animals and are able to manage then better in many cases. You mentioned earlier not being too narrow in job expectations. I have students come and say they can't get a job in animal science or whatever. They are caught in the trap of no job without experience, no experience without a job. I have leaned toward advising young people to take any job even though it isn't in their field. It's a beginning. Is this the right advice or should they stay within their field?*

Françoise Gillan When we have our briefing session on the labour market we talk about the job search and I tell the students that I realize that they are studying at Mac because of definite interests and goals and that there is nothing wrong with that. We all have one dream job as first choice and then there have to be second and third choices. I tell them to search well in their own area but don't stop there. Apply for other postings that may not be in their own area because the ideal position may just not be there at the right time. The worst thing that a graduate can do is to go six months or more without doing anything. That looks bad. Employers may feel that the

graduate doesn't have much drive and is not all that inclined to get a job. Take a part-time job, even if it is only for three or four hours a day. It is good for the moral, there's pocket money (stamps are expensive when sending out c.v.'s!) and the graduate gets to know people.

Steve Olive *Have you noticed any major swings in terms of areas of expertise that employers are looking*

for, or areas where there is still a good demand for graduates?

Françoise Gillan Each year there is more demand for food technologists and microbiologists than there are graduates in those areas. Food companies call me to fill positions in quality control departments, for instance, and I don't have enough names. Some companies have hired dietitians to work in food technology positions.

Generally all agricultural science majors do well. One thing that I have noticed is that there is more and more need by agribusiness for people in their marketing and sales departments. There are always some jobs in production but less so than in the past.

Large companies want their top people from marketing and sales because they feel that they have gained complete knowledge of their products and their clients. In my briefing session I tell the students not to be afraid to be ambitious — big companies like to see potential for promotion so a graduate who will move from department to department is the one shooting for the top of the corporate level. There's no longer a specific major or even a specific degree in the picture. The ones that make it have had the ability to learn on the job, to adapt, to communicate, and to delegate. As well as finding jobs in agribusiness, many Macdonald graduates find jobs in areas far removed from agriculture — or food science for that matter — and enjoy them.

Steve Olive *You also get very involved with finding summer jobs for students.*

Françoise Gillan The second term is hectic. We have campus recruiting going on full swing plus summer jobs, particularly summer jobs oriented to the student's field of studies. It's quite a challenge, but I feel strongly that it is an ideal opportunity for an employer to get to know a Mac student during a summer job, and permanent jobs can result because the student has gained experience with the company. Contact has been established. When employers come to recruit I always ask if they have summer jobs coming up. We also arrange for other summer jobs in any and all areas.

Steve Olive *Over and above being bilingual here in Quebec, you mentioned mobility; any other items specifically important?*

Françoise Gillan Being bilingual is important — both languages are important. A graduate should also be prepared, at least at the beginning, to move to Halifax or Vancouver or anywhere inbetween. A graduate should be able to communicate and should try while at Mac to participate in extracur-

(Continued on Page 15)

Challenges to cope with

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Canada's Agricultural Trade with Developing Countries

by Dr. Lewis A. Fischer
Department of Agricultural
Economics

Prevailing geographic, demographic, and economic conditions have made Canada into a trading nation *par excellence*. Almost one third of its Gross National Product (GNP) is generated through exports, and 25 per cent of all goods Canadians consume are imported. Traditionally, farm products and raw materials (petroleum, minerals, timber, etc.) dominated the composition of exports. Due to significant diversification in the 1970s food and raw materials now account for about 30 per cent and partially or fully manufactured products for some 70 per cent of merchandise exports. Nonetheless, Canada's comparative advantage on the world market remains in resource-based products. Throughout the past decade, fully 60 per cent of the country's exports were directly identifiable as resource-based at various stages of processing.⁽¹⁾

Canada is one of the world's leading exporters of grains and oilseeds. In the past two years 77 per cent of wheat, 42 per cent of barley and 68 per cent of rapeseed (Canola) produced has been exported. The aggregate value of agricultural products exported in 1973-77 averaged \$3.8 billion annually and reached \$9.1 billion by 1982. Trade policy within the agricultural sector is based on the principle of free trade emphasizing the disadvantage of trade barriers in world markets. These barriers primarily consist of a growing number of bilateral trade agreements between export competitors and food importing nations. Since June 1980, the amount of grain covered in bilateral commitments has increased from 21.9 million metric tons to more than 32.8 million metric tons. More than two-thirds of this increase comes from exporting nations having locked in larger shares of the Soviet grain markets. Most of these agreements have been signed by Argentina, Canada, and the European Community (EC).⁽²⁾ The global recession in the 1970s, the strength of the U.S. dollar, and the embargo against the USSR and Poland have affected U.S. farm



Above: An aerial view of a rural market in Colombia. Below, banana vendors in a local market in Kenya. Photos courtesy International Development Research Centre, Ottawa.



product exports. Consequently, the United States' market share diminished while the main competitors: Canada, Argentina, and the EC improved their shares in the first three years of the 1980s. Argentina has established grain prices far below the world market level. The EC took advantage of a export subsidy system which helped to increase the Community's market share in grain export from 5.8 per cent in 1970/71 to 13.2 per cent by 1982/83. The Canadian trade policy in

the 1970s can be characterized by growing government intervention in general and by the design of agricultural trade programs in particular. Export promotion has been embodied in direct export assistance implemented by the Export Development Corporation, in credit provisions, and in the program of the Regional Industrial Expansion Department. The recently approved Canadian Agricultural Export Corporation (CANAGREX) will plan and support efforts directed

toward farm product exports. Along this line the Canadian Wheat Board regained the country's historic position (13.5 per cent) in the world market. During the period 1970-1982 agricultural exports increased by 452 per cent while total exports increased by only 397 per cent. The most interesting feature of the trade is that agricultural exports to the Soviet Union grew by 2,053 per cent during the above mentioned period. This spectacular market performance must, of course, be attributed to the strategy of the USSR to turn to — as they called it — more reliable grain suppliers than the United States.

Canada's agricultural trade with the lesser developed countries (LDCs) has been governed by various elements of development in aggregate trade policy. One of them is a world-wide proliferation of protectionism which, in the words of the International Monetary Fund, "impeded structural adjustment, endangering efficient producers in industrial and developing countries."⁽³⁾ The instrumentation of protectionism consists of tariffs and non-tariff barriers. These elements are present to varying degrees in the developing countries. Tariff rates in Brazil range up to 205 per cent and the Andean Group — Colombia, Venezuela, Ecuador, Peru, and Bolivia — established a highly protectionist external tariff scheme. The South Korean tariff system protects its agricultural products while Indonesia's tariffs affect both agricultural and industrial goods. Mexico applies varying degrees of protection both to agricultural and industrial imports. African LDC's tariff systems vary; the common denominator is the application of ad hoc schemes which makes the importer uncertain and dependent on unpredictable changes in the system.

Another impediment to efficient trade performance is the foreign debt burdens of the LDCs. The total disbursed external debt of the developing countries at year end 1982 stood at about US \$625,000 million, up by almost \$100,000 million from year end 1981 and almost seven times the level at year end 1971 when the outstanding debt amounted to about \$90,000 million.⁽⁴⁾ Besides inability to pay for imports, many developing countries do not have the discharging, transportation, and storage capacity to handle imports.

Agricultural Trade with LDCs

A statistical review of our agricultural trade with LDCs in the past five-year period reveals the following structural characteristics:

*The share of farm products accounted for 21 per cent in total exports to vs 6.5 per cent of total imports from the LDCs. This proportion 21:6.5 clearly demonstrates the problem affecting this trade. Most of the LDCs partners need raw and manufactured farm products, but their exports to Canada consist predominantly of manufactured goods, competing with identical goods produced here. While the LDCs struggle for larger markets for their exports, Canada established protective measures affecting the import of textiles, clothing, and footwear. Government agencies declare these measures as "temporary" or "transitional"; however, under the pressure of high unemployment in related industries they have been renewed again and again. Obviously, there is a need for an objective evaluation of the welfare effect of a desirable change in the current situation. In this context it is interesting to note that an International Food Policy Research Institute (IFPRI) study concluded that a 50 per cent reduction in OECD countries trade barriers (affecting some 99 agricultural commodities) would increase agricultural exports from some 56 developing countries by about 11 per cent, equivalent to \$3 billion of extra sales at 1977 prices.⁽⁵⁾

*Grains and oilseeds still account for the major part (70 per cent) of the exports while fruits, nuts, and plantation crops constitute 75 per cent of Canadian agricultural imports from LDCs.

*By far the largest part of agricultural exports to LDCs has been commercial sales whereby special credit conditions have often been inherent in the transactions. Food aid is equivalent to 10 to 12 per cent of the purchases.

In view of the dominant position of grains in the exports it is in Canada's best interest to explore the ways and means to establish some kind of lasting agreement with the countries involved. That may call for reciprocal adjustment including the transfer of technology. The LDCs will become

buoyant and dynamic markets for Canadian agricultural products and recent studies point to these trends, provided that the developing countries themselves can find markets for their own exports. The developing world is a customer and a competitor on the international market place. As the Economic Council of Canada predicts: "the newly industrializing and emergent nations are expected to achieve the highest growth rates in incomes and in international trade."⁽⁶⁾

Against this general picture of our agriculture trade with LDCs questions arise: what are Canada's major regional partners and products, and what is the trade balance with those partners? To address these points I selected three groups of nations and two individual countries which in the past three years absorbed the major portion (over 60 per cent) of total agricultural exports to LDCs. Table 1 reveals the share of these countries in Canadian agricultural exports and also shows their total exports to Canada.

Cuba occupies a special position inasmuch as it is about equal on the trade balance. Actually, Cuba purchases more than half of our wheat flour exports, and it is conceivable that the remaining part bought by the USSR has also been transported to Cuba.

Mexico is the major importer of Canadian dairy products such as skim milk powder, evaporated milk, and the like. Its export to Canada consists of tropical fruits, vegetables, fuels, minerals, and metals. Particular importance must be attached to the newly industrializing countries (NICs) on the Asian continent. Hong Kong, Singapore, Taiwan, and South Korea achieved a phenomenal economic growth. The total Canadian export to these four countries amounted to \$1.3 billion and the import from them to \$2.2 billion. Fourteen per cent of their imports were food products⁽⁷⁾ in the early 1980s, of which about one third came from Canada. There is considerable market potential in those countries. The agricultural sector offers significant export opportunities.

South Korea is already Canada's second largest market for live cattle and increased sales of frozen semen are foreseen. Canada is Taiwan's eighth largest trading partner with total trade of \$953 million in 1982. While agricultural trade is lagging at the

present, more demand is likely to develop in the foreseeable future. The precondition is to reduce the current trade imbalance: in 1982 imports from Taiwan were \$661 million vs Canadian exports of \$292 million.

Malaysia is one of the most successful developing countries. It is a major world supplier of palm oil, pepper, rubber, and tin. In 1980 nearly 30 per cent of its imports consisted of food. However, Canada's share was very small indeed.

The NICs are promising to become a great market for Canadian agricultural products. There are several constraints, however. Some of the Asian economies are based on small-size agriculture with an export-oriented production and marketing system. Consequently, tariff and non-tariff barriers impede the import of farm products, particularly grains and oil seed. Secondly there is aggressive competition for those markets emanating from countries such as the U.S., Australia and, particularly, the European Community. The U.S. and the EC have some comparative advantages in processed and/or semi-processed farm and food products while Australia's comparative advantage is in its favourable location.

In summary

The Canadian agricultural industry has the potential to take advantage of the present and the expanding world market. However, we must develop a stronger export orientation toward the developing countries. Constraints to trade expansion have been stressed. A serious impediment is the plight of poor countries which experienced declines in the purchasing power of their exports: 13.8 per cent in 1980 and a further 9.7 per cent in 1981.⁸ On the

other hand there are developing countries with fast growing economies to be considered as trading partners of growing importance. To expand our agricultural trade with them selective targeting is needed to respond to specific demands emerging in those economies. The structural weakness of our agricultural exports is their composition. Grains and oil seeds account for 70 per cent of the exports, while manufactured farm products occupy a marginal position. Many developing countries improved their standard of living during the past decade or so and the demand for processed and luxury food items expanded. Canada's meat, fruit, and vegetable processing industries participation in exports to developing countries is far below their potential. Whether that is in connection with the fact that the larger part of the processing industry is owned by non Canadian corporations is a question to be considered. Another constraint is the trade-distorting protective atmosphere on the international scene. Meeting the trade objectives will require further initiative and incentives both from the public and the private sector. As far as the government is concerned a search for international agreements with trading partners might be a good solution. In this context the Lomé Convention is a good example. It provides a great many trade preferences in the exchange of goods between the EC and 60 developing countries. The EC's agricultural exports to the member-LDCs increased from about U.S. \$10 billion in 1973 to \$19 billion by 1980. At the same time agricultural imports to the EC from LDCs rose from \$2.4 billion to \$9.2 billion.⁽⁹⁾ On the Canadian scene CANAGREX might be a useful organization for future development, provided that the principles included in

the proposals are implemented.

The private sector's attitude to export trade has been presented in the so called Hatch Report⁽¹⁰⁾ which clearly outlined the ways and means of cooperation and coordination between government and the private sector to achieve the goal — i.e., the expansion of Canadian exports. Most recently, a very active private lobby has been created to promote trade in the Asia-Pacific region. The Canadian Committee on the Pacific Basin Economic Council includes a number of specific regional sub-committees which are devoted to building up the necessary elements of trade relations. For the time being it appears, however, that agricultural interests are not adequately represented in these respectable organizations.

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Table I. Canadian agricultural exports to and total Canadian imports from selected developed countries 1980, 1981 and 1982

Countries or groups	Million Dollars					
	1980		1981		1982	
	Agricultural exports	Total imports	Agricultural exports	Total imports	Agricultural exports	Total imports
Asia ¹	153	1,874	146	2,394	178	2,259
South America ²	27	2,840	20	3,189	33	2,614
Mexico	62	345	143	1,049	81	999
Cuba	156	163	130	193	86	95
Caribbean	52	N.A.	82	N.A.	71	N.A.
Africa and Middle East ³	74	2,798	71	3,058	171	1,198

1 = Hong Kong, India, South Korea, Singapore, Malaysia, Taiwan

2 = Brazil, Venezuela, Argentina, Columbia, Chile, Ecuador, Nicaragua, Uruguay, Guyana

3 = Nigeria, Algeria, Egypt, Iran, Iraq, Saudi Arabia, Libya

Compiled from *Agriculture Canada*, Canada's Trade in Agricultural Products, 1980, 1981, 1982, Ottawa 1983

Seminar Speaker Says

"Marks aren't everything!"

"Challenging summer jobs and extra curricular activities may not prove that the recent graduate you are interviewing is a winner but, in my opinion, there is more of a chance. I don't just look at marks." This statement by Roland Melanson, Vice-president of Production at Catelli in Montreal, was made at a seminar given by him for undergraduate students, mainly in Agriculture Engineering and Food Science, earlier this year on the subject "What is expected from the university graduate."

He told his audience that although each interviewer is different, he personally feels that the emphasis should be on personality for the simple reason that if you think in terms of a number of people being interviewed for a given job in a given company, the presumption is that as graduates they are satisfactorily prepared academically. Therefore, given the choice of candidates, you look for the apparent personality that you need. "How will that person fit into the organization? Is the person shy, a self-starter, has he done anything that tells me he will have initiative? Of course," he added with a grin, "if I were looking for a real brain to do research, then I might stick to marks — he may have no table manners, but that doesn't matter!"

In discussing employment prospects in the food industry, Mr. Melanson told his audience that some factors are encouraging and others not. "The growth of the food industry in Quebec and Canada has slowed down. Although food industries were growing by leaps and bounds — three per cent and up — this is no longer the case. One reason is that the population in Canada is not growing. Another is eating habits. "However," he continued, "food manufacturing is not going to go out of style because we are all going to continue eating."

Roland Melanson pointed out that the food industry, which used to be very labour intensive with endless lines of people filling boxes or cans manually, has become technology intensive with most tasks performed and controlled automatically. He said that the food industry must continue to make large investments — even though it

may not be growing in volume — in order to become more competitive, more cost efficient, and technologically advanced. He mentioned some development areas that are in progress right now such as plastic packaging — an up-and-coming type of food container. "For example, we are planning to change a metal container for a plastic one for one of our products. There are a number of people involved in this project: some are working on the process itself, some are installing equipment. We will have to change some process characteristics and evaluate the product. Another project involves the impact of purchasing tomato paste in aseptic bulk shipments. Or again, are there ways to increase the safety in steel containers? This can range from an exotic 21st century idea down to 'is there a better way to close a can than the way we have been doing it for many years?' As well," he added, "hydroponic culture is of considerable interest right now to several North American and European businesses."

New requirements need new people, Mr. Melanson said and he pointed out that there are jobs for food engineers and food scientists. "Although there may not be as many jobs today as in the past, more and more research and development (R&D) is required in food processing. Someone has to design new equipment and systems and someone has to install it. As time goes on, I think there will be more recruitment here in Quebec for the food industry."

In the question period, Mr. Melanson agreed with a student who remarked that many positions require experience. Plant managers and plant superintendents need experience, but he pointed out that young graduates are usually hired as trainees, supervisors, and project engineers. Although every position doesn't require it, of course, he also felt that it pays for some graduates to further their education. "There has been a marked trend in the last 10 years for young graduates in engineering and food science to take either an MBA or a master's degree.

Roland Melanson agreed with another student at the seminar who suggested that most undergraduates should be offered a course in business management. "After the first job as supervisor or junior scientist, most graduates will be managers in five years. A manager is a people-oriented person. He is directing people while what you have been learning at MacDonald is a scientific approach to problem solving and organizing your work. A business course would help eliminate some of the surprises."

While Catelli, which is a division of John Labatt, has not participated in a student on-the-job training program, Mr. Melanson said that his company had recently hired three engineers, two of whom had been through such a program and they appeared to be more job ready.

"It is an efficient way of mixing the practicalities of work with the necessities of learning," he said, but he pointed out that it is very difficult for a company to accommodate a six months on, six months off type of arrangement. "It makes sense, but I guess our conservative industrial culture in North America hesitates to accommodate this intellectually attractive situation. At least not yet."

On the other hand, he pointed out that his company often hires summer students and because of getting to know the individual's strengths and weaknesses has hired several after graduation.

Once on the job, Roland Melanson said that the environment now is team work. The lone person doing something without reference to others is a thing of the past. He concluded his remarks by also pointing out that starting in one job and staying there is not done these days. An employee should go from one section to another, ultimately ending up as a manager. This knowledge acquired in the various positions is vital. "We do not leave a marketing person in charge of marketing soups for very long; in time he goes stale. He is switched to something else and this way he becomes more valuable to himself as well as to the company."

Learning to communicate at... ...*"The Best Royal in Years"*

by Marilyn Rigelhof
School of Food Science and
Department of Renewable Resources

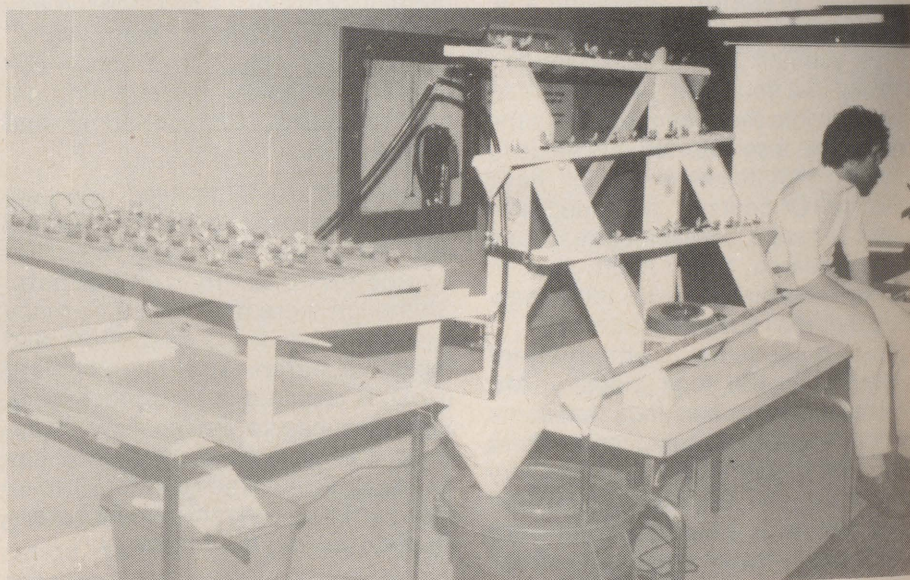
How do you improve a tradition? In the case of the 1983-84 Royal, the annual student-organized agriculture and food science fair held at Macdonald College, the planning committee received a request from six new groups (39 students in all) for booth space and an opportunity to participate in the event. These students were members of Communications: Extension Methods, a compulsory course which I offer in the General Agriculture program at Macdonald College during the winter semester to young men and women planning careers in agribusiness, agronomy, or production. The objective of the course in a nutshell is to make students familiar with the principles and techniques of effective communication. Such a course demands a practical component. In the classroom I make use of demonstration and seminar assignments to involve students in the planning, presenting, and evaluating of instruction and information. They learn, through experience, the best techniques for these formal presentations. The course work also requires that they write articles for journal publication, press releases, reports, minutes, letters, and memos. To complete the course I feel an opportunity for the students to have direct contact with the general public in order to practice their communication skills is required. The '83-'84 Royal provided such a forum.

Here was an opportunity for student involvement at every level from participating at organizing meetings to designing a questionnaire that would help evaluate the Royal. Experience in organizing and public relations is increasingly important if our graduates are to leave Macdonald College ready to step into the business world.

Taking the '84 theme "Food for the Future," five groups decided on food production themes for their booths: Maple Syrup Production; Wine-Making, a Home Hobby; Hydroponics; The Ocean as a Source of Food, and Apple Production. The sixth group agreed to undertake a Survey of the Royal, and



Marilyn Rigelhof samples some homemade wine at last year's Royal. After tasting the wine, many visitors decided to try their hand at making their own.



With just a bit of imagination visitors to the Royal could almost see the tiny plants growing in the hydroponics display.

so the real work began! Stefan von Cramen, President of the Royal met with the class to present guidelines for participation in the Royal and the all-important budget information. Each group had several meetings, minutes were taken and circulated, tasks and critical time paths were determined.

Who would come to the Royal and what would be of most interest to visitors were the next questions to concern the groups. Visitors of all ages from a variety of backgrounds and

speaking several languages found posters to catch the eye and provide basic information designed and produced by each group. There were interesting films and slides, but the biggest attraction was the display at each booth of things that could be seen, handled, tasted and smelled — maple syrup, varieties of apples, red and white wine, tiny water-born plants, and the seaweeds! Attractive displays and booth set-ups became important concerns for each group, including the



While the Canadian Aberdeen Angus and Canadian Shorthorn Association Convention was being held in nearby Pointe Claire, the wives, guided by Polly Houston, far left, toured the Royal before having tea hosted by Dean and Mrs. Lloyd.



One of the groups undertook a survey of reaction to the Royal and handed out balloons to the younger set. Results of the survey will help set guidelines for future Royals.

group conducting the survey questionnaire and interviews. The survey group occupied children with balloons, crayons, and paper while their parents filled in a questionnaire.

Scheduling meetings, drawing up work plans, critical paths with deadlines, collecting materials, finishing display materials, keeping records, sticking to a budget, anticipating questions, being informed, covering for a sick member, evaluating total efforts, making recommendations and, finally, reporting on results — all of these were experiences for each of the Communications students participating in the Royal. Each group submitted a written report discussing their involvement in the Royal with recommendations for the next year. The findings of the Survey Group were very interesting and should prove useful in planning future Royals. A copy of each report was sent to the Royal Committee to be passed on to the '84-'85 Committee.

Some comments from the reports

illustrate the experience from the students' point of view:

"Preparation of a booth with other persons is a very good way to acquire knowledge in communications (meetings, time-table, direct contact with the public, etc.) on one hand, and about a specific subject on the other hand. Our goals were fulfilled; we informed people, and the six of us also learned a lot. We enjoyed the experience!"

"The members of this group learned a lot doing this project and felt a sense of pride in being able to stand in front of a group of people and explain this topic to them. It does get tiring spending a whole day communicating to the public though."

"The 1984 Macdonald Royal took on a special flavour as a result of our presentation. For all of our group members this was a first opportunity to present Macdonald College to the community in such a direct fashion... for this group the Royal was a learning and fulfilling experience."

"We simply could not keep up with the demand for samples of wine. Approximately 25 litres of red and white wine were consumed by the Royal visitors during the three-day presentation. Many of the visitors expressed the intention of making their own wine in the future... this was indeed a definite sign of success."

"The public in general seemed to be more interested in physical objects that they could touch, examine, and especially those that were edible. Pamphlets and recipes were also very popular, and it was surprising to see how many persons took the time to fill in the forms to obtain government pamphlets that we did not have enough of."

"Our recording did not have much success, almost no one stopped to listen carefully to it... people came to the Royal to see new things, and learn but they were not particularly interested in having a lecture. The material presented to attract attention must be direct and concise; it must go to the public without the public having to get to it with any effort."

"As quite a few questions were asked of group members, previous exposure and study are definitely recommended."

"The organization of the display was a valuable experience. Members learned a great deal about a previously vague subject and met a large number of people including fellow students and teachers. It was difficult to coordinate the varied schedules of the group members, but compromise and cooperation in working with others (was experienced)."

And finally, the Survey Group's report summed up the Royal: "The overall reaction was favourable. Many remarked that the concentration of kiosks in one place (Centennial Centre) was a great idea; students were friendly, helpful, and knowledgeable; visitors felt in general that they had learned interesting things; more animals — a petting zoo; more participatory activities for adults and children; more publicity and signs. Booths should invite visitor's participation by asking questions of them and providing items to touch and taste."

"The general consensus was that it was the best Royal in years!"

In a real learning situation these 39 students experienced the reality of extension work in communications.

Canadian International Drainage Course



by Professor Robert S. Broughton
and Chandra Madramootoo
Department of Agricultural
Engineering

The first Canadian International Drainage Course was put on in May and June 1984. The program was coordinated by Professor Robert Broughton of the Department of Agricultural Engineering at Macdonald College and Brent Patterson, Head of the Drainage Branch, Irrigation Division, Alberta Agriculture, Lethbridge.

A total of about 90 "students" and "staff" participated in the course. The student participants included 10 engineers and soil scientists from the Egyptian Ministries of Irrigation and Agriculture, 9 engineers from the Pakistan Water and Power Development Authority, who were trainees supported by the Canadian International Development Agency (CIDA), 2 assistant professors on study leave from universities in Pakistan, 7 persons from Iran, and one each from Sri Lanka, Kenya, Brazil, Germany, France, Senegal, and Trinidad, and 27 Canadians comprised of 11 from Quebec, 9 from Alberta, 3 from Saskatchewan, 2 from Ontario, 1 from British Columbia, and 1 from Nova Scotia.

The instructional staff included Guy Mehuis, Stephen Ami, Chandra Madramootoo, Gilles Bolduc, Vijaya Raghavan, and Mamdouh Fanous of Macdonald College, Brent Patterson, Brook Harker, Wally Chin, Gary Buckland, and Jim Hendry of the Drainage Branch, Alberta Agriculture, and Dr. James Rhoades from the Salinity



Top: students and staff in the Canadian International Drainage Course pose for the official photo at Macdonald while, above, a group take in a field trip near Lethbridge, Alberta.

Laboratory, U.S.D.A., Riverside, California.

In addition much information was provided by persons from industry, contracting firms, consulting engineers, Agriculture Canada, CIDA, Alberta Agriculture, and the Prairie Farm Rehabilitation Administration during field trips and as individual classroom lecturers.

The course was operated with four weeks centred at Macdonald College and two weeks centred at Lethbridge, Alberta. In addition to lectures and assignments on aspects of drainage theory and design, the course included laboratory and field measurements of soil and water characteristics, field trips to observe drainage, irrigation, and land reclamation problems, as well as areas where drainage, reclamation,

and land improvement works had been successfully carried out.

The field and lecture room work included case studies of many aspects of particular drainage and land improvement projects in Canada, Pakistan, and Egypt.

The participants shared information about their countries as they travelled by bus and relaxed at coffee breaks and meal times. In this process all persons are winners. All gain additional knowledge, which costs little to carry along but benefits much as we work on land improvement problems. The participants gained greater understanding of drainage technology and also of cultures other than their own. They realized that they are all working for food production, peace, and prosperity in the global village.

Bovine Nutrition for the Practicing Veterinarian

by Henry Garino
Department of Animal Science

On August 28, 29 and 30, 20 young veterinary practitioners found them-

selves in an unusual setting, the classroom! Indeed, the Association of Practitioners had requested Animal Science to set up an intensive, practical course in Dairy Nutrition to

enlighten concerned veterinarians about nutritional considerations in overall herd health of dairy cattle.

Drs. E. Block and B. Downey, and myself met with Directors of the Association Drs. G. Lemire and P. Labrosse to establish topics of interest and overall development of the program.

The course was taught by the above staff from Animal Science and Dr. E. Chavez also of Animal Science. We also had plenty of help from graduate students M. Léonard and B. Farmer in the discussion periods which were frequent.

Overall, "The Team" was quite satisfied by the outcome of the course, not only from a technical point of view but also socially. Those vets were a lot of fun to teach. We hope to continue offering the course to other such groups.

Canada & the Third World working together



As Canada's largest independent international development organization, CUSO has been requested by Third World countries to find skilled Canadians for jobs in agriculture, animal husbandry, agricultural mechanics, irrigation, agricultural economics, forestry, fisheries and home economics. Some positions are specialized and require academic qualifications. In others, years of experience are as valuable as formal qualifications.

The jobs are challenging, will test your adaptability and give you the chance to work alongside people of another culture.

CUSO pays travel costs, for medical/dental/life insurance, provides language training where necessary and courses to help you adapt to life overseas. Housing is provided or subsidized. Contracts are for two years and salaries are low (\$4,000 — \$10,000 per year) but adequate for overseas living costs. Placement takes at least six months and can be difficult for families as medical and educational facilities are often inadequate for children. Couples can be placed if jobs are available for both partners.

For more information on these or other jobs in health, education, technology, trades or business, send two copies of your résumé to your local CUSO office (CUSO has offices in most major centres — check your phone book), or to:

CUSO Agriculture MJ-1 Program
2515 Delisle
Montreal, Quebec
H3J 1K8

CUSO: People & Development

(Continued from Page 7)

ricular activities, even if it is not in the president's role. Develop a personality as well as academic skills, and this will give a person a good chance to make it in the world.

Steve Olive *Do the same companies keep coming back?*

Françoise Gillan We have the traditional users that know Mac and have been coming here for years. The one type of employer that has increased in particular is the former student. In my 10 years I've tried to encourage graduates to come back as employers, and they seem to enjoy coming back on campus to recruit, as well as to contact me for immediate summer or permanent job offerings. I tell these employers that the one thing they can say to a competitor is "if you need someone good, get a Mac grad like me!"

For further information and/or assistance contact: **Françoise Gillan, Counsellor in charge, Student Placement Office, Macdonald College of McGill University, 11 Maple Avenue, Ste. Anne de Bellevue, Que. H9X 2E3 Tel.: 514-457-6993 or 457-2000, ext. 146.**

Students Promote Themselves

Last year in mid-December the Macdonald College Students' Society sent some 900 food and agribusiness companies, governments, and other potential employers a booklet entitled "1983-84 Graduates."

Well over 150 final year students in the Faculty of Agriculture and School of Food Science contributed financially to the booklet, others gave their time, particularly David Shutler who edited last year's edition. Their reason: seeking suitable employment after graduation. We asked David Shutler and Dr. Jean David, Associate Dean of Student Affairs and Public Relations, to discuss the booklet and its potential.

"When Peter Henderson was the Student Placement Officer on campus he was looking for a vehicle to promote our graduates and thought of a booklet that would give a resumé of each graduate's academic background, employment experience and other interests, and, of course, career preference," Dr. David explained, "and," he continued, "Peter's first booklet came out in 1966. After he left, the idea fell by the wayside until a few years ago when a son of one of our professors, Gerry Millette of Renewable Resources, found that McGill's Engineering Faculty was publishing a booklet for their graduates. This prompted the revival of a similar booklet on this campus with the students being responsible for its publication. Henri Tichaud, B.Sc. (Agr.) '80, was the first editor.

Last year's editor David Shutler, a native of Ville Lasalle, Quebec, fit this job into an extremely busy schedule. As he explained, "My education has gone through a few bizarre twists and I had to take two extra courses over four semesters to earn my BSc (Agr) '84 in Environmental Biology. I started out at John Abbott CEGEP in Commerce and took a year in that at McGill before deciding that that was not what I wanted. I then did a three-year natural science program at Vanier CEGEP."

As David Shutler was unhappy with the jobs he got, it possibly encouraged him to take on the editorship of the



Dr. Jean David, Associate Dean of Student Affairs and Public Relations, and 1983-84 editor David Shutler examine a copy of the grad booklet.

booklet which is designed to help employers choose from Mac's well-trained graduates. This was not his first student activity: he had served as secretary-treasurer and then co-chairman of the Wildlife Society and worked on the Carnival Committee; last year he took over the booklet from the previous year's editor Martin Bélanger, "who kept pestering me until I finally agreed to do it."

Although he did the majority of the work, about 10 people gave David a hand with the project.

Timing is one of the major difficulties in publishing the booklet Dr. David told us. "At the beginning it came out earlier, but with students working on it themselves, it is difficult to get it out any earlier. Instead of putting the material together in the fall for a December mailing for next year's graduates, it really should be done in the previous spring but employment for that graduating class would be a long way off. The mailing from the Student Placement Office reserving employers' times for interviews with prospective employees during the school year is done in August; thus, the booklet may be too late for some employers."

From his very recent experience of prodding students for resumé, getting photos, doing layout, proof reading, and cutting copy, David Shutler told us, "I think there should be two editors and that they should work during the summer — getting things ready, sending letters out with registration packages suggesting that students be ready to be photographed at registration and at the same time fill out resumé forms." David made detailed

suggestions and outlines for the group working on this year's edition.

Appearing in the Graduates' booklet is voluntary and each student who submitted a resumé contributed \$.40. Some 150 students took advantage of the public relations to be gained by appearing in last year's booklet. David told us of other sources of funds: "The Dean gave us some money with the proviso that we got the booklet out on time. We also received money from the Agricultural Undergraduates Society (AUS), the Students' Council, some of the Departments, and the Graduates' Society.

"We printed 1,000 copies," he continued, "with some 900 being sent to employers on the mailing list used by the Placement Office. Although the booklet is mailed right across Canada, the main distribution is concentrated in Quebec. It is definitely good publicity for the students and for our programs here at Macdonald."

David won a Natural Sciences and Engineering Research Council (NSERC) scholarship this past summer and, following graduation in June, assisted with waterfowl research being done by a Master's candidate working in Kouchibouguac National Park in New Brunswick. In September he began work on his own Master's degree at Macdonald College, studying birds that return to forest fire sites.

Any potential employer who is not on the Placement Office mailing list but would like to receive a copy of the graduates booklet should drop a line to the Students' Society, Centennial Centre, Macdonald College, Que. H9X 1C0.

Seeking Solutions

by Dr. A. F. MacKenzie
Associate Dean, Research

Many Macdonald researchers are involved in the University-Industry research programs that emphasize cooperation. Mac people provide the expertise, and Industry supplies the means and the problems that need to be solved. The following are examples of projects that have been studied recently or are in progress.

Silage additives to improve silage quality are being studied by Professors Alli and Baker of the Department of Agricultural Chemistry and Physics. The companies involved include Pioneer Hi-Bred International (Inc.) and International Stock Food Company Limited. With additives it may be possible to improve nutritive value of corn silage, or ensile materials that otherwise would not produce good silage. However, before definitive results will be obtained, Professors Alli and Baker are planning to pursue basic studies on the components of silage: amino acids, acid contents, enzyme activities, and mould formations. Applying this knowledge to the study of silage additives should help in the introduction of effective materials designed to improve silage in Quebec. This energetic pair have already moved onto similar work with hay quality. Improved hay quality through additives will be the study of further work, supported by Monsanto Co.

While on the subject of silage, Dr. Leroy Phillip, now of Ralston Purina, but formerly at Macdonald College, has been involved in silage quality as affected by fertilizer use. Dr. Phillip, in conjunction with the author (of the Department of Renewable Resources) has just completed a three-year study on the effect of added urea and potash on corn yield and silage quality. This work has been supported by the Potash Corporation of Saskatchewan (PCS), and has been of special interest to Dr. Ed Spratt of PCS. Results are in the computer but already there are indications that the proper balance of fertilizer N and K is necessary for optimum silage quality and feeding value.

Professor Alan Watson of Plant Science and his colleague Professor Alan Gottlieb of the University of Vermont are the scientists involved in a recent licensing agreement with Mycogen Corporation, San Diego, California, to promote the development of natural disease organisms for the control of velvet leaf. The pathogen in question is a fungus that has a unique appetite for velvet leaf, and velvet leaf currently escapes herbicide control in soybeans. The fungus will complement existing chemical herbicides. We may be on the threshold of an era where environmentally safe organisms are available to promote weed control in our agro-nomic crops.

Venturing off-shore, Professor Donefer of Animal Science has a contract with the Canadian International Development Agency (CIDA) to optimize commercial animal feed production from cane separation projects. His partner in this project is Dr. Ian Sangster of the Jamaican Sugar Industry

Research Institute. In turn, the Institute is involved with Intercane Systems of Windsor, Ontario, in testing the commercial feasibility of the Canadian cane separation process. Thus it may be seen that industrial cooperation, like inter-locking directorship, can be complex.

We all know that Tabasco^H sauce has that indescribable taste — fiery with a distinct tendency to clear out the sinuses. Apparently the product is indescribable, too. Tabasco sauce is the product of fermentation and ageing of red hot Tabasco pepper following an age-old recipe developed by Edmund McIlhenny of Avery Island, Louisiana. The micro-organisms and chemical reactions involved in this conversion of the fruit to the familiar distinctive sauce are unknown. Staff and students in the School of Food Science have been contracted to study and characterize the process. Could it be they plan to improve this incredible product?

One small step for forestry

by Professor J. D. MacArthur
Curator, Morgan Arboretum

The new federal Department of Forestry is but one of the new things about the Conservative government. The idea is not original; in fact, at one time there was a federal forestry department. But it was short-lived and, even as forestry and its leading position in the Canadian economy became increasingly evident, the federal interest in forest-related activity continued to decline. In recent years as the major national resource in the country, and the base of the major industry, fell lower and lower on the federal priority list, the forestry community pleaded in vain for appropriate action. Establishment of a department of forestry has been repeatedly recommended to the federal government during recent years. Now that the new government has lived up to its election promise the first small step has been taken in putting forest conservation in an appropriate place in the list of government concerns. The forestry community and many others will be pleased but at the same time will remain skeptical. Only when the department produces new and effective measures to ensure a greatly improved influence on the conserva-

tion, restoration, and wise use of the forest resource, both public and private, will there be reason for satisfaction.

The formation of a department of forestry alone must not be allowed to satisfy us. This long-delayed move must be seen as a beginning, and unless it is followed by truly significant involvement of the federal government in the improvement of the many unsatisfactory forestry situations in Canada the brave beginning will not amount to much.

For the new minister and the new department to be effective in bringing about real progress there will need to be sustained pressure for change. If there is no expression of strong and widespread public concern, nothing much will be possible no matter how willing the minister may be.

So let us not be mesmerized into thinking that all is well, and let us remember that political action occurs in response to public pressure. Public pressure has brought about the first step, and it is now the task of all concerned to maintain this pressure so that the minister will have a strong hand in caucus and in cabinet. He needs our help as much as we need his.

FARMERS' DAYS

MAKING A COME BACK

by Micheline Lambert, Serge Lussier, and Henry Garino

Re-established last year, this almost forgotten tradition of open house is increasing in popularity. Approximately 500 visitors, mainly farmers, showed up at Macdonald College on July 18 and 19 to have a look at the practical research demonstrations put on at Macdonald.

The visit started at the Farm Centre, where Henry Garino, the Coordinator of Rural Extension Services and Rudi Dallenbach, the Farm Director, welcomed everyone. At the Farm Centre there were a number of displays covering a wide range of activities. There were displays by the UPA, the QFA and the QYF as well as the Macdonald College Information booth handled by Jim Currie and his staff and by Clair Blais of Extension Services.

Serge Lussier of Plant Science, Laurie Baker of Agricultural Economics, and Elliot Block and Henry Garino of Animal Science (photo 1) teamed up to handle "The economics of high moisture ear corn" (HMEC) feeding in dairy, veal, and fattening rations. They presented information on yield, cost and utilization of HMEC as compared to grain corn and corn silage in different cattle programs. This multidisciplinary team also tackled the topic of "Economic implications of forage sampling" by providing data on the disastrous consequences of improper sampling at the farm.

There was also a poster display on on-going departmental research projects that served to illustrate the prolific work of Macdonald researchers.

The main site for the demonstrations was the Emile A. Lods Research Centre where a guided tour on farm wagons had been organized for the visitors (photo 2). Agrologists and staff members, Micheline Lambert, Serge Lussier, and Albert Legrand described the experiments going on, their goals, and results. A few of the experiments that could be seen at the Lods Centre are described below.

Cereal breeding

Several oat and barley cultivars

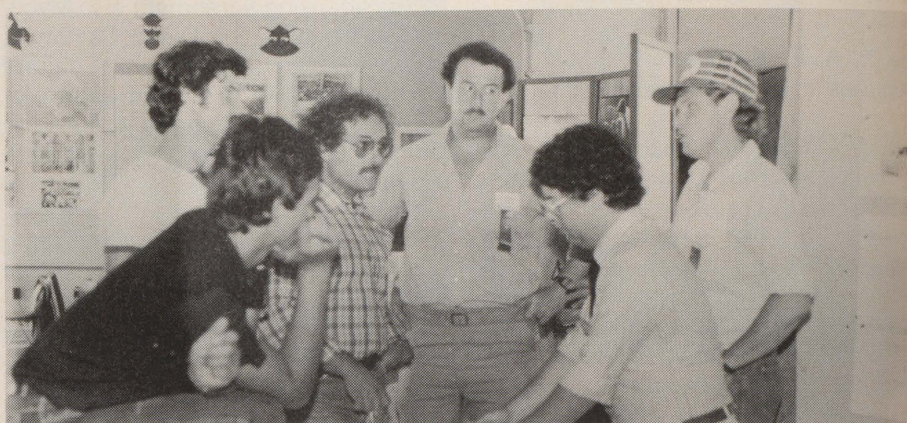


Photo 1. Elliot Block, 3rd from left, Laurie Baker, and Bertrand Farmer in lively discussion with Henry Garino and Diploma student visitors to Farmer's Days.

commonly used in Quebec were developed at Macdonald College under the supervision of Professor H.R. Klinik (Table 1). Visitors were told of the different steps involved in the development of an improved cereal cultivar in order to achieve the following goals: a) increase yield while maintaining quality, b) reduce the incidence of lodging, and c) select for disease resistance. Other projects of significant interest to the visitors were also briefly described such as: a) the evaluation of barley lines of decreased tillering capacity, and b) the study of synchronization of maturity in barley tillers.

Intensive cereal management

Trials dealing with intensive cereal management through the use of growth regulators and fungicides are also studied at the Centre. Other aspects studied include increased seeding rates and nitrogen fertilization in split application. Considering the high basic costs of growing cereals such as land, machinery, etc.), it makes sense that producers should try to obtain the highest economic yield possible. This research is coordinated by Mr. Raymond Martin.

Fall cereal trials

Yield trials covering winter rye, winter wheat, and winter triticale are regularly carried out. From time to time, winter barley is included in the trials; its winter hardiness being not quite sufficient for our region. The main factors studied include yield, lodging resistance, and winter hardiness. The winter wheat area is constantly increasing due to the availability of better varieties and the need for producers to extend their seeding and harvesting seasons.

CPVQ trial

In order to make up its cereal and forage cultivar recommendations, the "Conseil des Productions Végétales du Québec" (CPVQ) established about 25 trial sites in the province — Macdonald is one of them. The participants were told which varieties seemed to be best adapted for the region among the different species.

Herbicide trials

Visitors were introduced to the herbicide research at Macdonald with a brief discussion dealing with the objec-

Table 1. Cultivars released from Macdonald College

Cultivar	Species	Year	Distributor
Laurent	Oat	77	Secan
Laurier	Barley	75	Ciba-Gelgy
Loyola	Barley	72	Coop Fédéré
Yamaska	Oat	68	General release
Dorval	Oat	64	General release
Champlain	Barley	62	Maple Leaf Mills
Glen	Oat	57	General release



Photo 2. Albert Legrand hosted one of the wagon tours of the Emile A. Lods Research Centre.

tives of this research, which is to test various herbicides at different rates of application and in various sites. The crops tested include wheat, barley, oats, corn, and some forage species. Methods of data collection such as visual evaluation of weed control, quadrat samples in which weed density and biomass are obtained, and finally the calculation of actual yields were also described.

Biology and control of yellow nutsedge

Yellow nutsedge, a perennial plant species native to North America, is considered a serious weed problem, particularly in corn production. In order to control its spread we need to better understand the nature of this weed. Among the methods of control tried at Macdonald under Professor Alan Watson's supervision, a combination of herbicide and/or crop rotation combinations are tried. The herbicides compared include alachlor (Lasso), bulylate (Sutan), EPTC (Eradicane), metolach-

lor (Dual), and Atrazine. Crop rotation involved the subsequent combination of several crops such as buckwheat, barley, soybean, alfalfa, and forage mix. Intercropping of forages and corn is also tested.

Maximum Corn Yield Research

Is a breakthrough in corn yield possible for Quebec farmers? New techniques are being tried to find out if

increased corn yields are still possible in our province. The cultural methods include higher plant populations, narrower row widths, higher fertilizer rates, and drip irrigation. Comparison between normal recommendations and intensive management are described in Table 2. As this year was the first of this experiment, no results other than what could be seen on the plot were available. A walk through the

Table 2. Culture methods compared in the maximum corn yield research

Inputs Fertilizers (Kg/Ha)	Normal Recommendations	Maximum Yield Experiment
N	170	400
P O	100	300
K O	170	400
Mg	—	15
S	—	30
B	—	0.2
Mn	—	0.5
Zn	—	0.3
Populations (plants/ha)	50-60,000	65-90,000
Row widths	75cm	38cm
Irrigation	no	drip
Hybrids	Many good hybrids are available. We have used arbitrarily Pioneer 3925 and 3949. This does not imply any preference or recommendation	

plots showed interesting differences among treatments. Professor Angus MacKenzie, Michel Rémillard, and John Hamilton were our guides at this stop. (photo 3).

Soil erosion studies

Did you know that Canada is losing topsoil at the estimated rate of 130 million tonnes per year due to water erosion? This is the equivalent of about 10,000,000 dump trucks of eroded soil each year. In Ontario alone soil erosion costs about \$75,000/year in terms of decreased production, eroded fertilizers and pesticides, and ditch cleaning.

At Macdonald, Professor Guy Mehuys and his team are trying to estimate the extent of soil erosion in southwestern Quebec using rainfall simulation (photo 4). They are attempting to determine the effect of certain factors such as soil type and rainfall intensity on soil erosion rates in order to improve the prediction of soil erosion in Quebec as well as ultimately to suggest ways of minimizing it while maintaining acceptable productivity. Up-to-date, out of the four locations being actively tested, approximately 15t/ha/yr of valuable topsoil have been lost on the average.

High-tech electric fencing

Several experiments of the Department of Renewable Resources are located near the Morgan Arboretum. This wildlife area is also a very popular park, and thus the experimental sites are disturbed by predators (raccoons, skunks, foxes, coyotes), dogs, cats, and people. It was therefore decided to protect 20 acres from the predators and 15 acres from people through the use of a high-tech electric fence (photo 5). This fence differs from normal fencing in having the support posts much further apart, the wire strands being heavily tensioned with springs and a very high voltage being used.

Professor Roger Bider, who is responsible for this project, explained that this type of fence has proven very effective in keeping away animals and people. Relatively inexpensive, it costs about 42 cents per foot of a 4-strand fence, and approximately \$1 for electricity per month.



Photo 3. At the site of the maximum corn yield studies Professor A.F. MacKenzie with postgraduate student Michel Rémillard and John Hamilton, an agricultural engineering student who was working for the summer on the site, get ready to answer visitors' questions.

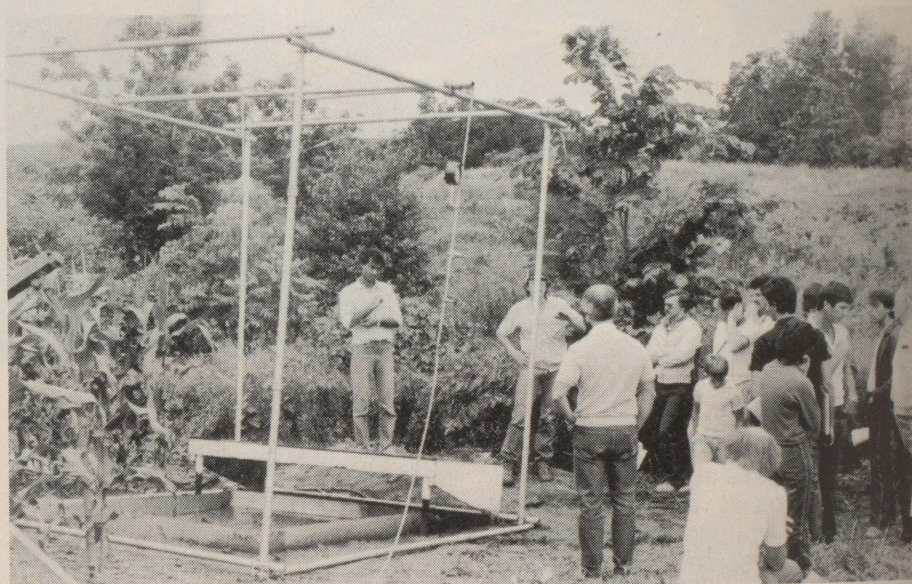


Photo 4. The site of the soil erosion studies was extremely popular as everyone is concerned with the loss of valuable topsoil.



Photo 5. Professor Roger Bider, with scythe, explains the effectiveness of a high-tech electric fence used in a wildlife area near the Lods Centre.

Heavy axle load compaction and corn yield

Surface soil compaction and its detrimental effect on plant yield are now well recognized. However, little is known about the depth to which compaction can extend into the soil profile and the potential alteration of subsequent crop yields. A comparison between corn yields obtained under different compacting loads (20, 10 or 5 tonnes/axle) indicated that higher compactive loads can lead to revenue losses of between 25 to 50 per cent due to grain yield reductions.

Studies are being carried out by Professor G.S.V. Raghavan and his team on: a) how soils and plants perform after repeated annual heavy load compaction and b) if and how natural processes such as wetting and drying or freezing and thawing help soils to recover from an initial incidence of high axle load compaction. The research seeks to find the best



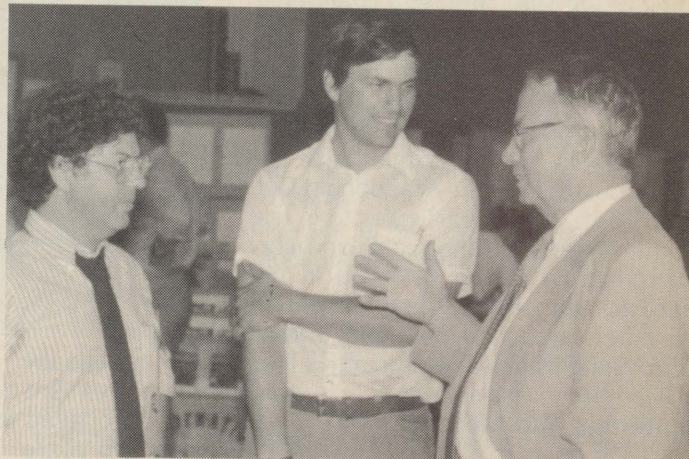
Photo 6. Agricultural Engineering Chairman Ted McKyes demonstrates an effective way of loosening a large volume of soil with a design of subsoiler.

methods of relieving subsoil compaction.

Subsoiling

Another demonstration at Farmers' Days was an advanced type of subsoiler for relieving dense soil layers, resulting from machinery compaction or natural causes. The subsoiler, equipped with 35cm (14in.) wide wings, was pulled at 45 to 60cm (18-24in.) depth easily by a 37kW (50 hp) 2-wheel drive tractor, and was seen to be very efficient in loosening a large volume of soil (photo 6).

All in all this year's Farmers' Days were considered to be very successful. We had a reasonably good turn out and a keen bunch of producers. Our colleagues on staff rose to the occasion and worked hard in organizing and presenting the information that we thought might make decision making back on the farm an easier chore.



Among those taking in the first day of Farmer's Days were: above left, QFA Fieldman Bill Dings from Lachute chatting here with Dean Lloyd, while, above right, Dean Lloyd and Henry Garino greet former student Rod MacLaren, centre. Below left, Jack Kelly and Ted McKyes of Agricultural Engineering invite Dave Fisk, BSc (Agr) '69, MSc (Agr) '71, for a tour of their research site on minimum tillage. Below right, John Howieson, Dip '75, left, took a day off from dairy farming in Alexandria, Ontario, to tour the facilities.



Piglet and Sow Production in Relation to Parity

by Raj Rastogi¹, E.R. Chavez, and J.F. Hayes,
Department of Animal Science

¹Raj Rastogi is a Visiting Scientist from the Department of Livestock Science, University of the West Indies, St. Augustine, Trinidad

To the owner or manager of a pig farm, the total production from the herd is of extreme economical importance. Of course, total production depends on how well the sows reproduce and on the survival and growth of piglets born. There are several studies covering these aspects (e.g. Johansson and Korkman, 1950; Urban et al. 1966; Strang, 1970; Fahmy and Bernard, 1972). The sow's performance may change during its lifetime, which may have varying effects on piglet growth. Studies in which sows were kept under farm conditions for their entire productive life are difficult to find in the literature, except for a few (Zagozen and Salehard, 1973; Rybalko, 1975; Pour and Hovorka, 1976; Leigh, 1977).

The purpose of our study was to characterize the performance of the pig population on the Macdonald College Farm, and in particular to investigate changes in the piglet and sow performance during their life in the herd as measured by the effect of parity (litter sequence obtained from a sow during its active reproductive life).

Materials and Methods

Data from 1,057 litters farrowed in the College pig herd between 1974 and 1980 were used in this study. Six breeds: Yorkshire, Landrace, Large White, Large Black, Duroc, Hampshire and their crosses were represented. Ninety-eight per cent of the sows were purebreds. The Landrace breed was predominant in the herd, which was made up of about 80 breeding sows each year. The ratio of purebred to crossbred piglets was 2.4. Gilts which were physically sound and young in age at 90 kg body weight were chosen as replacements. Females selected for breeding were artificially inseminated on two consecutive days following the immobilization reflex. Sows that returned to heat were reinseminated and if they failed to conceive again, were culled from the herd. The herd



was practically closed to outside breeding except that four or five boars were purchased from outside sources every two years. To further minimize inbreeding, sire-daughter, sire-granddaughter, and sib matings were avoided.

The herd was managed under a total confinement system of production. During gestation the sows were kept in an enclosed shed with plenty of straw bedding. They had restricted access to commercially pelleted feed (16 per cent protein) and free access to water. They were transferred to individual farrowing pens 10 days prior to expected farrowing date. Sows were weighed within 24 hours after farrowing and again at weaning 21 days later. The piglets of sows that were rearing large litters or that did not have enough milk were allowed creep feeding from two weeks after birth. Weaned pigs were fed a starter ration containing 18 per cent protein and a grower ration

containing 16 per cent protein. Litter size was recorded, and each piglet in the litter was identified and sexed. Body weight was recorded at birth, 21 days (weaning) and at marketing at approximately 90 kg. Data at farrowing and at market were also recorded. The male piglets were castrated within 10 days of birth. The herd was managed by one herdsman throughout the period of this study.

Statistical analyses were carried out on piglet and sow data for the characteristics listed in Tables 1 and 2. Percentage survival of piglets was computed on a litter basis by dividing number weaned by number born alive. Due to unequal subclass frequencies, the data were analyzed by the General Linear Model (GLM) procedure of the SAS-79 (Helwig and Council, 1979). The models used are best illustrated in Tables 1 and 2. It should be noted that the major interest in this study was to examine the effects of parity (or lit-

ter sequence) on various performance traits. Thus, emphasis is accorded to the effects of parity in describing the results, and less is said about the effects of other factors. All effects were considered fixed except for the error term.

Results and Discussion

The results are summarized in Tables 1, 2 and 3. For each trait studied, these tables indicate the model, total number of observations, tests of significance, least squares means (corrected mean) and standard errors, (precision) and regression coefficients (rate of change of one factor for each unit change in one other factor, slope).

Year of Farrowing

Year of farrowing effects were significant for all five of the 15 traits analyzed. Total litter weight at birth declined significantly from 1974 to 1980 (Table 1) even though the number of piglets born in total and alive remained unchanged (Table 2); thus average birth weight was reduced significantly (Table 1). Total litter weight at weaning was not affected by year of farrowing (Table 1); thus the differences at birth disappeared by weaning

time because the number of piglets weaned were similar (Table 2). Therefore, no significant differences were observed in percentage survival from birth to weaning time. When litter weights at weaning were compared on the basis of average piglet weight per litter (Table 1), a significant difference was observed which reflected the significant differences observed in pre-weaning average daily gain (ADG), but there were no time trends.

The average sow age at farrowing was significantly different among the years (Table 1), more a reflection of the average age of the sows maintained in the reproductive herd than a year trend.

Post-weaning average daily gain of the piglets (ADG), as well as market weight in kg (Table 3), were significantly different among years of farrowing, with a clear trend i.e., increasing from 1974 to 1980. Age at marketing was largely determined by post-weaning ADG (Table 3).

Parity

Parity effects were significant for all traits studied. It should be noted that parity (litter sequence effects) is partially confounded with age of sow effects.

Total litter weight at birth and wean-

ing (Table 1) increased from the first to the third and fourth parity, respectively, declining thereafter to very low weights in old sows even when the total number of piglets born, born alive, and weaned followed the same trend (Table 2). Similar effects were observed with average piglet weight at birth and weaning time as litter sequence or sow age increased (Table 3).

Pre-weaning ADG (Table 3), a reflection of sow milk production increased up to the third parity and declined rapidly thereafter. Age at marketing was largely determined by post-weaning ADG and market weight (Table 3).

The number of piglets weaned per litter (Table 2) increased gradually up to the fourth parity, which was also reflected as the peak in the total litter weight at weaning (Table 1), and then declined steadily.

With respect to litter size in relation to parity, several workers have reported similar findings to ours. There is agreement that litter size at birth as well as at weaning increased up to or around the third to fifth parity and then declines thereafter (Zogozen and Salebar, 1973; Rybalko, 1975; Pour and Hovorka, 1976; Leigh 1977; Grudniewska et al. 1978, Szoradi, 1979). McGloughlin (1978) reported that par-

Table 1. Least squares means, standard error and tests of significance for various sow traits

Classification	Total litter weight at birth kg	Total litter weight at weaning kg	Av. piglet litter weight at birth kg	Av. piglet litter weight at weaning kg	Sow age at farrowing days	Sow weight at farrowing kg	Sow weight at weaning kg
No. of observations	1057	1041	1057	1041	1048	500	472
Year of farrowing	**	NS	**	**	**	**	**
1974	13.0 ± .4	42.0 ± 1.3	1.37 ± .02	5.2 ± .1	1101.4 ± 8.2	204.7 ± 2.6	189.9 ± 2.3
1975	13.5 ± .4	37.9 ± 1.2	1.40 ± .02	4.7 ± .1	1089.2 ± 8.4	196.4 ± 2.5	180.7 ± 2.2
1976	13.1 ± .4	39.9 ± 1.2	1.38 ± .02	5.0 ± .1	1104.2 ± 7.9	203.9 ± 2.3	189.0 ± 2.0
1977	12.7 ± .4	39.1 ± 1.2	1.37 ± .02	5.0 ± .1	1104.4 ± 7.6	194.2 ± 2.5	178.6 ± 2.3
1978	12.5 ± .4	38.7 ± 1.2	1.32 ± .02	5.0 ± .1	1104.4 ± 7.5		
1979	11.8 ± .4	39.0 ± 1.2	1.26 ± .02	5.1 ± .1	1070.1 ± 8.0		
1980	12.0 ± .4	39.4 ± 1.2	1.24 ± .02	4.8 ± .1	1078.8 ± 8.1		
Parity	**	**	**	*	**	**	**
1st	12.3 ± .3	37.0 ± 0.9	1.39 ± .02	5.0 ± .1	369.6 ± 6.0	167.2 ± 2.3	149.6 ± 2.0
2nd	13.2 ± .3	40.8 ± 1.1	1.46 ± .02	5.4 ± .1	545.9 ± 6.8	186.7 ± 2.6	167.7 ± 2.3
3rd	13.8 ± .3	41.9 ± 1.0	1.38 ± .02	5.1 ± .1	711.6 ± 7.1	195.1 ± 2.3	176.0 ± 2.1
4th	13.7 ± .5	44.1 ± 1.5	1.34 ± .03	5.0 ± .1	860.1 ± 8.2	192.0 ± 3.6	178.2 ± 3.1
5th	13.1 ± .5	41.3 ± 1.6	1.30 ± .03	4.9 ± .1	1021.4 ± 9.1	201.5 ± 3.7	186.3 ± 3.3
6th	13.2 ± .5	42.0 ± 1.7	1.27 ± .03	4.8 ± .1	1160.9 ± 10.6	207.5 ± 4.3	195.6 ± 3.9
7th	13.2 ± .6	40.2 ± 1.9	1.29 ± .03	4.8 ± .1	1303.2 ± 12.3	222.6 ± 4.8	211.9 ± 4.3
8th	12.4 ± .6	38.8 ± 2.0	1.32 ± .04	4.8 ± .2	1463.2 ± 13.5	225.6 ± 6.2	211.4 ± 5.4
9th	109.7 ± .8	33.7 ± 2.3	1.32 ± .04	5.0 ± .2	1632.7 ± 17.1		
10th	10.8 ± .8	34.7 ± 2.5	1.24 ± .05	4.8 ± .2	1863.5 ± 18.1		
Sow age at farrowing	NS	NS	*	NS		**	**
< 1 yr	11.9 ± .6	37.8 ± 1.8	1.28 ± .03	5.0 ± .1		188.3 ± 4.1	174.8 ± 3.7
1 - 2 yrs	12.7 ± .4	40.6 ± 1.3	1.33 ± .02	4.9 ± .1		201.2 ± 2.8	186.3 ± 2.5
> 2 yrs	13.3 ± .2	39.8 ± 0.6	1.38 ± .01	5.0 ± .1		209.9 ± 1.7	192.6 ± 1.5

* = P < .05. ** = P < .01. NS = Not significant (P < .05).

ity had a significant effect on litter size at birth and at 48 days. Vidovic et al. (1977) reported that parity had a significant effect on number of liveborn piglets per litter and litter size and weight at 21 days of age. Schlindwein et al. (1979) also reported that parity had a significant effect on litter size and piglet birthweight. Thus, there was evidence that suggests that older sows have an insufficient milk supply, affecting the survival and weight of their piglets to weaning time.

Age of the gilts at the first parity was approximately one year and the average farrowing interval varied from 140 days for the fifth and sixth parity to 231 days for the ninth and tenth parity (Table 1).

This is in contrast with the findings of Schlindwein et al. (1979), in which they reported that the lowest and highest average farrowing intervals were those between the 1st and 2nd and between the 8th and 9th farrowings (6.9 and 8.0 months, respectively).

Body weight of the sow at farrowing

Table 2. Least squares means, standard error and tests of significance for litter traits

Classification	Number of piglets			Survival from birth to weaning %
	Born total	Born alive	Weaned	
No of observations	1062	1063	1063	1063
Year of farrowing	NS	NS	NS	NS
1974	10.3 ± .3	9.6 ± .3	8.1 ± .3	82.8 ± 2.2
1975	10.6 ± .3	9.9 ± .3	8.0 ± .3	82.0 ± 2.1
1976	10.2 ± .3	9.6 ± .3	8.1 ± .3	84.5 ± 2.1
1977	9.8 ± .3	9.3 ± .3	7.7 ± .3	82.3 ± 2.1
1978	10.1 ± .3	9.6 ± .3	7.4 ± .3	78.5 ± 2.1
1979	10.1 ± .3	9.6 ± .3	7.8 ± .3	81.5 ± 2.1
1980	10.1 ± .3	9.8 ± .3	8.0 ± .3	81.1 ± 2.3
Parity	**	**	**	*
1st	9.2 ± .2	9.0 ± .2	7.5 ± .2	84.7 ± 1.6
2nd	9.4 ± .3	9.2 ± .3	7.8 ± .3	87.2 ± 2.0
3rd	10.7 ± .2	10.1 ± .2	8.1 ± .2	80.5 ± 1.8
4th	10.7 ± .4	10.2 ± .4	8.9 ± .4	85.6 ± 2.7
5th	10.6 ± .4	10.1 ± .4	8.1 ± .4	77.9 ± 2.8
6th	11.1 ± .4	10.5 ± .4	8.5 ± .4	79.8 ± 3.1
7th	11.0 ± .5	10.2 ± .5	8.3 ± .4	80.2 ± 3.4
8th	10.3 ± .5	9.4 ± .5	7.9 ± .5	82.3 ± 3.6
9th	9.1 ± .6	8.5 ± .6	7.0 ± .6	82.9 ± 4.3
10th	9.5 ± .6	8.8 ± .6	6.6 ± .6	77.0 ± 4.5
Sow age at farrowing	NS	NS	NS	NS
< 1 yr	10.1 ± .4	9.3 ± .4	7.4 ± .4	77.8 ± 3.2
1 - 2 yrs	10.2 ± .3	9.7 ± .3	8.2 ± .3	83.8 ± 2.3
> 2 yrs	10.2 ± .2	9.8 ± .1	8.1 ± .1	83.8 ± 1.1

* = P < .05 ** = P < .01. NS = Not significant (P > .05).

Table 3. Least squares means, standard errors and tests of significance for various growth traits

Classification	Birth weight kg	Weaning weight kg	Preweaning ADG g	Postweaning ADG g	Market weight kg	Age at market (days)
No. of piglets	10300	8571	8571	5263	5263	5597
Year of birth	**	**	**	**	**	**
1974	1.38 ± .01	5.09 ± .04	175 ± 1.7	520 ± 2.7	84.7 ± .2	175.8 ± 0.7
1975	1.39 ± .01	4.63 ± .04	152 ± 1.6	556 ± 2.6	84.7 ± .2	166.7 ± 0.7
1976	1.39 ± .01	4.90 ± .04	165 ± 1.7	557 ± 2.6	86.5 ± .2	168.6 ± 0.7
1977	1.38 ± .01	4.89 ± .04	165 ± 1.7	572 ± 2.5	87.2 ± .2	166.0 ± 0.6
1978	1.32 ± .01	4.87 ± .04	167 ± 1.7	552 ± 2.6	86.6 ± .2	170.4 ± 0.6
1979	1.26 ± .01	4.97 ± .04	174 ± 1.7	573 ± 2.7	87.1 ± .2	165.2 ± 0.7
1980	1.27 ± .01	4.78 ± .04	165 ± 1.8	563 ± 2.9	88.0 ± .2	170.4 ± 0.7
Parity	**	**	**	*	**	NS
1st	1.34 ± .01	4.79 ± .04	163 ± 1.9	553 ± 3.1	86.5 ± .2	170.3 ± 0.8
2nd	1.45 ± .01	5.17 ± .04	176 ± 2.0	565 ± 3.2	87.0 ± .2	167.1 ± 0.8
3rd	1.41 ± .01	5.17 ± .04	177 ± 1.7	560 ± 2.7	86.7 ± .2	168.1 ± 0.7
4th	1.39 ± .01	5.01 ± .05	170 ± 2.2	569 ± 3.4	86.6 ± .2	166.2 ± 0.9
5th	1.35 ± .01	4.94 ± .05	169 ± 2.2	563 ± 3.5	87.2 ± .2	168.8 ± 0.9
6th	1.28 ± .01	4.85 ± .07	168 ± 3.0	550 ± 4.7	86.0 ± .3	169.3 ± 1.2
7th	1.29 ± .02	4.70 ± .08	161 ± 3.5	550 ± 5.7	86.0 ± .4	170.2 ± 1.4
8th	1.31 ± .02	4.67 ± .08	158 ± 3.7	554 ± 5.8	85.7 ± .4	169.0 ± 1.4
9th	1.23 ± .02	4.57 ± .08	156 ± 3.8	541 ± 5.9	85.8 ± .4	172.2 ± 1.5
Age of sow	**	NS	NS	*	**	NS
< 1 yr	1.29 ± .01	4.80 ± .07	165 ± 3.0	558 ± 4.7	86.6 ± .3	168.5 ± 1.2
1 - 2 yrs	1.32 ± .01	4.80 ± .05	164 ± 2.4	554 ± 3.7	86.0 ± .2	169.2 ± 0.9
2 - 3 yrs	1.35 ± .01	4.90 ± .04	167 ± 1.8	549 ± 2.8	86.1 ± .2	170.4 ± 0.7
> 3 yrs	1.40 ± .01	4.99 ± .05	169 ± 2.1	564 ± 3.5	87.0 ± .2	168.0 ± 0.9
Sex	**	**	NS	**	*	**
Male	1.37 ± .01	4.91 ± .03	167 ± 1.2	571 ± 1.9	86.3 ± .1	164.8 ± 0.5
Female	1.31 ± .01	4.84 ± .093	166 ± 1.2	541 ± 1.8	86.5 ± .1	173.2 ± 0.5
Breed Type	**	**	NS	**	*	**
Purebreds	1.31 ± .00	4.80 ± .03	164 ± 1.1	545 ± 1.7	86.4 ± .1	172.3 ± 0.4
Crossbreds	1.37 ± .01	4.94 ± .03	169 ± 1.4	568 ± 2.2	86.3 ± .1	165.7 ± 0.5
Regr. on no. of piglets born alive	**	**	**	**	*	**
Regr. on market weight	-.03 ± .00	-.19 ± .00	7.4 ± 0.2	1.4 ± 0.3	-.05 ± .02	.79 ± .08
						.37 ± .05

* = P < .05 ** = P < .01 NS = Not significant (P < .05).

ADG = Average daily gain.

and at weaning (Table 1) increased steadily with parity. The weight losses tended to be greater for the first three parities than the last three parities (18.6 kg vs 12.3 kg, respectively). An average weight loss of 17.2 kg during lactation was recorded. Fahmy and Bernard (1972) reported a weight loss of 25.3 kg in Yorkshire gilts between farrowing and weaning at 8 weeks of age.

Age of sow

Weight of sows at farrowing and weaning increased with sow age, as would be expected (Table 1). Weight loss between farrowing and weaning time also increased with sow age (Table 1).

Total litter weight at birth and weaning were not significantly affected by year of farrowing. The total number of piglets born alive and weaned were similar for sows in the three age groups (Table 2).

Average birth weight of piglets increased significantly as sows became older but these differences had disappeared by weaning time (Table 3). Small but significant increases in postweaning ADG can be observed from older sows giving a significantly heavier pig at market weight at the same age (Table 3).

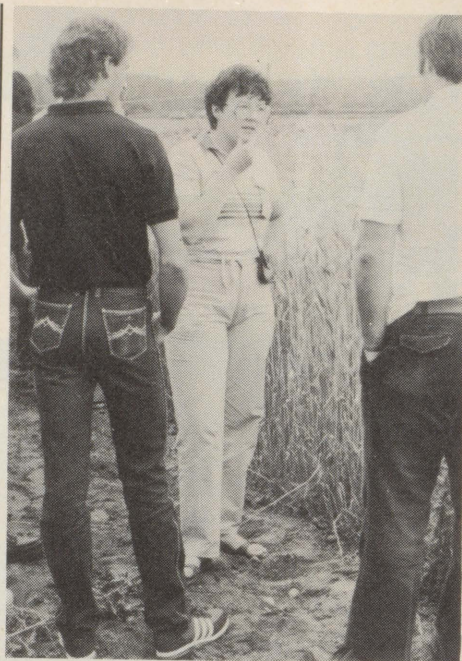
Sex of piglets

Males had significantly higher birth weights, weaning weights, postweaning ADG, and, therefore, were younger at marketing time than females.

Breed type

Crossbred pigs were heavier at birth and at weaning time, and they had better preweaning and postweaning ADG than purebred animals.

The overall sow and piglet performance in the Macdonald Farm herd was found to be either equal or slightly superior to other populations of pigs kept under similar conditions; for example, when compared to the performance of Yorkshire gilts as reported by Fahmy and Bernard (1972). This was so, even though it has been reported that the litter size of Yorkshire dams exceeds that of Landrace and Lacombe dams by one piglet (Kennedy and Moxley, 1978). Females of Landrace breed predominated in the Macdonald Farm herd.



In conclusion, the present study seems to suggest that for best overall sow productivity, females for reproduction should not be retained in the breeding herd after their 8th parity. This suggestion is based on the fact that total productivity of sows in their 8th parity is equivalent to replacement gilts in their first parity. Leigh (1977) suggested that under tropical conditions of Nigeria, sows should not be kept in the breeding herd beyond the 6th parity.

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Extension Services

Marcel J. Couture, Director of Extension Services, is pleased to announce the appointment of Micheline Lambert as Assistant-to-the-Director. She will be working closely with the Extension committees: Student Recruitment, Publications, Rural Extension, and General Community Relations. Micheline Lambert, who started in Extension in late June, will provide the logistics, organize, and participate in short courses, salons, field days, fairs, tours, rural workshops, conferences, machinery shows and so on; as well she will write articles for various magazines, newspapers, and journals and will assist with student recruitment. Micheline is a BSc (Agr) '81 graduate and is currently completing work for her master's degree.

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DIPLOMA

Chicken Rancher —
Maritime Style

C by Jim Currie
O Assistant Director
R Farm Practice
N Diploma in Agriculture
E Program
R

It was 8:00 a.m. and I was just having breakfast. Normally, I'm not that lazy, but I was on holiday. It was a beautiful, crisp, March day. From the window of my brother's place, I could just see the peaks of the Rocky Mountains glistening in the early morning sun. Since I was the only person there I naturally answered the phone when it rang. I almost dropped it when the caller asked for me. Nobody knew I was there. It was even more of a shock to hear Mackie Sprague's voice cheerfully bidding me good morning, although it was almost noon at his home in New Brunswick. I was shocked again by his message. "You probably better not come down to interview me next week, Jim. As I understand it you are looking for successful Diploma graduates, and I don't feel much like that today; my barn burnt down last night."

What could I say to that? I could only express regrets, condolences, and offer whatever meager help I could. Luckily, it gave me the opportunity to write about Duke Schultz instead for the May issue of *the Macdonald Journal*.

Upon reflection, this little incident gave me insight into the strength of character of one of the most remarkable young men I know. This man, who was faced with potential financial disaster, who had just watched a major part of his investment go up in smoke, remembered a promise given to a friend. He then took the time to track me down to apologize for not being able to fulfill his promise at that time. Quite a guy.

Malcolm Sprague, Dip '78, has been a special person to me since the day we met in September 1976, shortly after he arrived at Macdonald. For some reason we just matched characters. I remember arriving home that night after meeting Mackie to announce to my wife that we might be



Mackie Sprague on the site on his new poultry barn.

taking in a "boarder." To the question "Oh! Who?" I couldn't answer. I hadn't got a name; I just knew that my first impression was good enough to trust this stranger in my home. I never regretted it.

Where did this paragon of virtue come from, and where is he going? The first is easy to answer, he is an army brat! And he will go as far as he decides he wants to go. He was born in Val Cartier, Quebec, and spent the first three years of his life there, at the military base. His father completed his military career in 1959, and retired to a small farm, where Mackie cultivated his interest in things agricultural. He may be one of the last Diploma graduates who can claim that he began his education in a one-room school house. He got his formal education there, but it was his parents who taught him to be adventurous, self-reliant, and respectful of others. After graduation from high school in 1970 he set out to experience life before settling down to a "career." At that time, farming was not the be-all and end-all for him.

He went to St. John, N.B., to a technical school to learn sheet metal work. With this skill he was able to work first in a mobile home factory, then in a steel mill in Holland. He found that he hated this sort of work since it was inside and routine, and, in the summer of 1974, he returned to the farm and

to part-time work. He was still not ready to settle so he applied to the Diploma Program and was accepted to enter in September.

September found Mack back on the road again, literally, but not heading for Macdonald. He took a job with the New Brunswick Department of Highways as a road access technician. He made the recommendations for who should and should not be allowed to build an access road to a highway, and where that access should be placed. His strength of character started to show at this point when he resigned because some of his recommendations were being over-ruled by his political bosses. If he was going to be in charge, then he wanted his decisions respected. Away he went for another adventure. Three months as a longshoreman in the St. John Harbour, and another three months working on the oil rigs and in a sheet metal shop in Calgary convinced him that he was sick of odd jobbing for a living.

He contacted Dr. Lawson, the Director of what was being referred to as the "New" Diploma Program, and was admitted into the first year of the revamped program in 1976. The program was being called new since that was the first year that the Quebec Ministry of Agriculture was sponsoring the program. With this improved source of funding the program was

changed to become much more practically oriented. This wasn't the deciding factor since Mack was already convinced that Macdonald was where he wanted to go. He had been convinced by his friend and future brother-in-law, Bill Clelland, Dip '74, and by his sister, Penny, who was a secretary for the Animal Science Department at that time.

Now it can't be claimed that Mack was an ideal student. He quickly realized that life as a student meant more than study, study, study. There were many times when I didn't have to feed that boy breakfast. Nor can he claim that he never gave his professors cause for alarm. He is probably one of the few students who, when told that a final exam was at 10:00 to 12:00, arrived at the door 10 minutes to 12:00. However, all in all, he made it.

Mack was in the first group of students to experience a practical internship in the Diploma Program. He took full advantage of this opportunity to increase his experience. He worked on a dairy farm near his home. In his second year Farm Practice he worked the home farm, including 1-1/2 acres of pickling cucumbers, under contract to a local company, plus tomatoes, corn, and squash. He also raised hogs and 2,000 non-quota broiler chickens (of importance later on). He was putting his Farm Project — one of the required courses in the Diploma Program — to work in real life.

His enterprising spirit led him to trade a piece of property that he owned, near his father's farm, to a local developer for 110 acres of land beside the St. John River, just south of Fredericton. Through prior connections he secured the contract to supply vegetables to the local military base. He grew some himself and acted as a broker for the rest. He also applied to Sussex's Poultry for a 20,000 bird broiler quota. This connection led (in autumn 1978) to the manager of Sussex's Poultry offering Mack the job of foreman of the killing floor. Mack didn't have a hard time refusing that job but was more interested in the next suggestion from that manager. There was a poultry farm near Millville, New Brunswick, for sale. There was quota for 30,000 broiler chickens per cycle, and 8,000 broiler turkeys per cycle, all at a very interesting price. The farm was only 99 acres, but there were two barns, the

biggest (310' × 40' × 2 floors) was 11 years old, while the other (185' × 40' × 2) was only four years old. The feeding and watering equipment was in good shape, and he decided to give it a try.

His first step was to draw up another Farm Project to see what problems he could find on paper. He figured that he could produce 4-1/2 cycles of chickens, or 135,000 birds per year, and 3 cycles of turkeys, enough to stock any civil service. He knew that budgets would be tight, but with his other farm as equity he felt confident that he could make it work. On December 22, 1978, he became a chicken rancher.

Following Market Trends

He was right, poultry farming has not been easy. His main objective is to keep his feed conversion down, since that is such a major part of the cost. He has done quite well, conversions now are as low as 1.95 pounds of feed per pound of chicken, and 2.4:1 for the turkeys. He also knows that he must be absolutely meticulous with his hygiene control, and he must concentrate on all areas of management to make a dollar. Included in this is an in depth awareness of market trends and contract flexibility.

To stay current in this aspect he has worked very closely within the producer groups affecting poultry production in Canada. At present he is the Vice-President of the New Brunswick Turkey Marketing Board, and is the provincial representative to the Canadian Turkey Marketing Agency. As well, he has become chairman of the Price Advisory Committee to the New Brunswick Chicken Marketing Board. A good place to be to follow market trends. But this involvement is also a measure of his commitment to his industry.

As a matter of fact, he was at a national marketing board meeting in Toronto when word came through from his wife Nora that his biggest barn was burning down. Faced with this disaster he rushed home only to find that his many friends were ready to rally around to help him re-establish as quickly as possible. When I finally did get to see him this past summer, the new barn was well under construction. I was even able to fulfill my offer of help by spending two days nailing

down plywood flooring.

Mack is an innovator. He has a quick and imaginative mind that helps him a lot in looking at alternatives. He has been able to save a lot of expenses by using alternatives in his management scheme. For instance, it used to cost about \$700 per barn for shavings for bedding each cycle. He also needed to insulate the attic of each barn. His alternative was to buy his own truck, fix up an unloader and blower and haul his own shavings for \$10 per load. Since it only took five loads per barn, he could save a lot of money, and he could haul his own shavings for insulation.

At one point he was offered an old wood fired boiler and heating system for \$900. He looked at the facts: his present oil system cost too much in the wintertime. He also had over 90 acres of wood that he could use. Away he went, put his handyman skills to work and built his own heating system. He hasn't had a chance to evaluate the savings yet, but he feels confident that he has made the right move. He will gladly spend a winter's work in the woods instead of out of pocket cash.

Other projects that Mack has completed include construction of his own cottage and re-construction of his house under the watchful eye and gentle prompting of Nora. He hunts, fishes, and can paddle his own canoe. He has raised chickens, pigs, cattle, horses, and some of the best looking Golden Retriever dogs around. In fact, he has so many interests that it is unnecessary to even joke about his rugby days, or his hockey ability, or the fact that he had me running around catching turkeys until three o'clock one morning.

In the final analysis, it can be said that Malcolm Sprague, Dip '78, is an imaginative young man with a zest for life, who is a success with or without his new barn.

As a post-script to the article, I would like to mention another of the class of '78 graduates. David Kay and his wife Leslie own and operate a hog farm about eight miles away from the Sprague farm. He originally started with chickens but is now in the process of converting to a farrow to finish operation. He also deserves an article of his own in some future issue. Besides, that gives me one more good reason to visit one of my favourite parts of Canada.

FUN FACT FABLE FICTION

by Ralph H. Estey
Emeritus Professor
Department of
Plant Science

A Non-Chemical Insecticide

At times in the 1920s a device guaranteed to kill potato bugs without the use of chemicals was advertised in the farm papers of New Brunswick. One of my neighbours bought one for \$8. When he opened the parcel he found a block of wood, marked number 1, and a small wooden mallet, marked number 2. The directions advised putting a potato bug on #1, and striking it with #2. The results were guaranteed.

Bundling

A unique method of courtship known as bundling was very popular among the early settlers in the colder regions of eastern Canada. Partly because of a lack of space in the dwellings, but mostly because it was such a good idea, a suitor and the girl he was visiting went to bed together fully clothed, often with a board between them. Since bedrooms were unheated in the winter, bundling was a practical and moral means of allowing privacy during such visitations without the discomfort of the winter cold.

A Twilight Zone

Old age is that period of life in which we hide the vices we still cherish and criticize those we no longer have the energy to commit.

Cutting Costs

Governments of all levels from British Columbia to Newfoundland are reducing the number of workers with the purported twin objectives of saving money and increasing the efficiency of those who are fortunate enough to be left on the job.

On the surface this appears to be commendable but, in many cases its commendability is a matter of opinion. For example, let us assume that an efficiency expert took a close look at the operation of the Montreal Symphony Orchestra. He would see that all the first violins play identical notes. Such duplication of effort could be drastically reduced. If a large volume of sound is required it could be obtained by means of electronic amplifiers.

The oboe players have nothing to do for prolonged periods. Their numbers would be reduced and the work spread more evenly over the whole of each concert, thus eliminating peaks of activity.

There is often much repetition of some musical passages. Such scores could be drastically pruned. No useful purpose is served by repeating on the horns a passage that has already been well handled by the stringed instruments. If all redundant passages were eliminated, the time of the whole concert could be reduced by half, and there would be no need for an intermission.

When these efficiency

measures are implemented there may be some reduction in box-office receipts. In that event it would be possible to close sections of the concert hall, with a consequent saving in heating and lighting, the number of ushers, and in governmental subsidies.

These are just random thoughts on how one efficiency expert could reduce the cost of the orchestra. A government appointed committee of experts would find more ways of cutting all costs, except their own fees.

Adapted from NPL News
236:17(1969)

World's Fair in New Brunswick

In 1890 Saint John, New Brunswick, was the site of a World's Fair. The local organizers called it Canada's International Exhibition, but it was so successful and attracted so much attention that newspapers in Toronto and elsewhere referred to it as a "World's Fair." At the time, Saint John was the fourth largest city in Canada. The great exhibition was held partly in permanent buildings within the city and partly in more temporary buildings adjacent to the Moosepath Driving Park, three miles away. There was a railway shuttle service connecting the two, and the Inter-Colonial Railway ran special excursions, from various points in the Maritime provinces, to the Fair.

Aim Carefully

The first-time visitor to Japan is likely to be a bit perplexed upon entering a Japanese-style lavatory because the expected flush-toilet is not there. Instead there is a relatively small rectangular receptacle in the floor. This white-porcelain unit is often in a slightly elevated platform. The user first stands flat-footed astride the receptacle, then bends down into a squatting position and takes careful aim at what now seems to be a very small opening. The position may be awkward at first but it has the great merit of being very sanitary because no part of one's body comes in contact with the receptacle.

Male users tend to urinate while standing on the lower level and aiming for the opening.

Believe It Or Not

The name of the Warrant Officer of the Scots Dragon Guards Band is I.P. Standing. See it for yourself on albums of their recorded music.

Burma Shave

For at least a decade after 1926 the most common and most looked for of all advertising signs seen from the highways of North America were Burma Shave signs. Farmers were paid an annual rental fee for allowing six signs, spaced 100 feet apart, to be posted on their land. The group of six signs advertised one of the early brushless shaving creams with a set of humorous verses. Motorists eagerly awaited the new verses each year.

FINDING YOUR ROOTS

With a keen interest in her own as well as her husband's family background, it seemed logical that during a recent visit to Macdonald, Quebec Women's Institutes President Gwen Parker discuss the Quebec Family History Society with one of the Society's charter members, Mrs. Margaret Turner, Morgan Arboretum Secretary. The Society's offices and library are located at Glenaladale, the Lakeshore property of the late David Stewart who was an ardent supporter of various historical societies.

Gwen Parker *What is the aim of your Society?*

Margaret Turner The aim of the Quebec Family History Society is to help English-speaking people trace their family history. Their roots do not have to be in Quebec; for example, all my own roots are in Ontario, England, and New York State. However, the English go back a long way in this province and have contributed to it, and there are many English-speaking people here who want to find their roots. Six years ago the librarian, Teri Shaw, at the Beaconsfield library had many requests from people searching their roots, and she didn't have very much material. She decided to get some people together who might know of something that could be done. With a nucleus of about six people we founded the Society in 1977 and we now have 420 members, which we feel is pretty good over such a short span of time. French-speaking Quebecers have the Société généalogique canadienne française which has been in existence for 25 years or more, but until '77 there was nothing for the English.

Gwen Parker *Where are your members from?*

Margaret Turner They are mainly from the Montreal area but because they have roots in Quebec we've got members from as far away as California.

Gwen Parker *Do you reach out into the country area at all?*

Margaret Turner We would like to start some branches in other areas as they have done in Ontario. They must have 10 to 15. For example, I belong to the Ontario Genealogical Society, which is headquartered in Toronto but I also belong to the Leeds and Grenville branch which is in Brockville, in eastern Ontario, because that is where my ancestors come from. I get their literature and newsletters. I am also thinking of joining a branch up north of Toronto in Grey Bruce because I have ancestors there, too.

If we could form some branches in such areas as the Eastern Townships, Pontiac, or the Gaspé where there are groups of English-speaking people who would be interested, we would be delighted.

Gwen Parker *How does your group differ from the many historical societies?*

Margaret Turner We are very aware of each other, but our main thrust is family history. As an example, we have lists of cemeteries connected to churches in our library at Glenaladale, but we would like to continue to record all the cemeteries in Quebec and would like to work with the historical societies on this. As well, there are tombstones on farms throughout Quebec as it was quite common to have family burial plots on farms because churches were not always close by. We don't know where they all are and would like to find out. If there is anyone living in an area where there is a small plot, we would like to record everything that is written on the stones and where they are located. Some day they will disappear.

To do serious work on cemetery records you need crowbars, shovels, and protective clothing, and to be able to read old tombstones well, there is a certain time of day when the light is best. People often do rubbings of them, but to record them a work crew will

mark off a row with string so that they won't repeat a stone, and they will mark everything that is on that stone using a stroke for the end of a line.

We have a gentleman who is very interested in the Lachute area and has done a lot of research which he has donated to our library. One of our long-time members, David MacDougall, is a professor of geography at Concordia, and he has done a great deal of research in cemeteries in the Gaspé area. Gerry Rogers has done wonderful work in the Huntingdon area. We hope eventually to be able to print some of this work in book form. We would also like to have any type of family or local history — not necessarily an original but a copy. Failing that, we would at least like to know that such a history exists and where it is.

Gwen Parker *How do you get in touch with each other and with other Societies?*

Margaret Turner Anyone who is particularly interested in family history belongs to a local society and knows that every state in the United States and now every province in Canada has a society. These people join for various reasons. Some may wish to find out how to go about searching. As there are all sorts of places to search English protestant records in Quebec, we are in the process of compiling a book on sources in this province. We have a *Journal Connections* that comes out four times a year. In the past we have carried features on Pontiac and Megantic counties. We list newspapers of particular interest such as the *Townships Sun*. We put in material of particular interest to people who live out of town but have roots in Quebec. For instance a friend of mine told me that her family had had a reunion. She showed me a paper that had the family tree on one side and some facts about the family on the other. Her mother's name was Brodie and they had had one of the oldest farms on Upper Lachine Road on the outskirts of Montreal. Her ancestors

had developed the Fameuse apple and the Montreal melon. I put this information in *Connections* because somebody somewhere in the United States or Canada will see it and may find they are related.

Gwen Parker *We are interested in family history on both sides of the family. My husband's family belong to the MacBean clan. They have an association called the Clan MacBean in North America Inc. and have published a large book of Macbeans, Macbains, Beans dating back to 1600s, and they have a quarterly family newsletter. My ancestors are Johnsons on my mother's side and we have traced them back to the 1600s. They came from Wales via the States to Quebec. On my mother's father's side the Rublees originated in France. It was because of the persecution of the Huguenots that they went to The Netherlands and then came to Canada. The name has been changed down through the years — Rapelier, Rapalje, Rapalye, Robblee, and Rublee. That's the type of thing you would put in *Connections*, I gather.*

Margaret Turner Yes. We also run a queries column in every issue. Here are a couple of recent ones that might interest you:

"287 WILSON, Effie dau of Elizabeth WILSON and Thomas WILSON (parents cousins?). Effie b. 27 Aug. 1886 Shawville, Que. Doris Swarthout, R.D. Box 118, Deansboro, N.Y. 13328"

"305 MARTIN, Thomas, d. Hemmingford, Que, in the fall of 1853. Born in Ireland or Canada between 1787-1800. How did he acquire the property he owned at time of death — was it a grant to him or his father? Who were his parents — where in Ireland were they from? How can I find list of his personal property at his death? His wife was Mary DOWLONG from Ireland — seek info on her also. Mary Mulcahy Branon, 54 Gogan Ave., Plattsburgh, New York, 12901, U.S.A."

Gwen Parker *How are you financed?*

Margaret Turner We are financed by our membership and were very fortunate in David Stewart giving us space at Glenaladale in Pointe-Claire. We have a library there which is open

Mondays and Thursdays, and we use the house for small meetings. When we are not there we have a telephone answering service. We meet at the Lachine Municipal Library for larger meetings and our general meeting. Meetings are held the second Tuesday of every month and well-known speakers are invited such as John Ruch, who has done a tremendous amount of research on the United Empire Loyalists, and Graham Decarie. As a matter of fact, his uncle who is close to 90 has given us all sorts of Decarie history.

Gwen Parker *What got you interested in genealogy?*

Margaret Turner I had a strong feeling that my grandmother was a Home Child. She came to Canada alone at 12 years of age, and she never told any of us anything about her background in London. That is why I started genealogy — I was so fond of her that I could not understand why her mother would let her come to Canada alone to live on a farm in Ontario. Finally I wrote to Bernardo's Home in London and sure enough I found out that she had gone there when she was 12. Six months later she was sent out to Canada and luckily found a good home. They have all the records and if you dig hard enough, you can come up with some information. From that start I have gone on to trace more of my family's background and in the past few years have also worked with the Quebec Family History Society. I've worked on *Connections*, helped out at Glenaladale, and am at present excursions chairman. I have organized trips to the Quebec City archives, to the public archives in Ottawa and hope to take a tour to England in October. We will go to London for a week and then disperse and go to the areas where people are interested in searching.

Actually, you don't have to travel. I found out about my grandmother by letter. You can hire a genealogist, but I think the best way is to join a society in the area that you are interested in. Genealogists are very congenial. We do searches for members for a fee.

Gwen Parker *I would imagine that histories of homes would be of interest as well. I have done one on our home, which has been in my husband's family*

since December 26, 1883, as a Women's Institute project. My husband's Grandfather Bean also kept a store and ran the post office here in what was known as Suffield and the records of that era are fascinating. As well the WI promotes community history. At the moment I can think of Ascot branch in my own county that did a history which records all the people who lived along the different roads in the area as well as the changes that had taken place.

Margaret Turner The Ontario archives have lists of all WI histories for some counties in that province. Either for communities or for families, it is important to get oral stories first. Talk to people in their 70s, 80s, and 90s and get their stories. Then get births and other vital statistics. Another early start is to go to the cemetery. Then you branch out into more difficult areas and start going to archives, libraries, and joining societies. We have workshops that teach people how to search here, in the States, England, and Europe. I am doing this, in part, for my children and hope that one day their children may be interested.

Gwen Parker *Now is the time to keep records for future generations. If any of our WI members or other readers are interested, how may we find out more about the Quebec Family History Society? What are the fees?*

Margaret Turner The membership fee is \$15 a year with full voting privileges and the right to hold office. Associate or family membership is \$20 — that is family members living at the same address — and institutional membership is \$15. Members have use of the library and receive *Connections*. For membership in our West Island society or for information on the possibility of setting up a branch society, the address is:

Quebec Family History Society,
P.O. Box 1036, Postal Station Pointe
Claire, Quebec, H9S 4H9, (514)
697-5939.

Harold Blenkhorn The Student/ The Graduate

(Continued from Page 4)

"My background is rural in the true sense of the word. I grew up on a farm in Cumberland County, Nova Scotia, in the days of kerosene lamps, one-room schoolhouses, and muscle power for much of the farm work. I am referring to the 1930s and I would say that farming communities before the days of paved roads and electricity were much more "rural" than they are today.

"Following the one-room schoolhouse I took one year of the diploma course at N.S.A.C. and later switched to the degree course which led me to Mac as a junior in 1948 where I took what was known as the Agronomy-Soils option.

"There was a wide choice of student activities to become involved in at Mac as it existed in those days. One that I enjoyed was the Choral Society which was directed by the late Dr. Frank Hanson of the School for Teachers. I might mention that such activities were an example of the enrichment which the presence of Education provided for the Mac campus. I was also a member of the 'Melody Macs' — a dance band that found regular employment at the Saturday night 'hops' held in the Women's gym. We received the sum of \$2 each for our evening's work which, believe it not, made a significant contribution to my finances. To put it into perspective, a glass of beer at the Canada Hotel (Joe's) cost all of 10 cents.

"I enjoyed my years at Macdonald, and I feel that I owe the college a lot. After all it provided me with a degree which I think I have made pretty good use of and which has kept me more or less gainfully employed. I have a genuine interest in Mac and how it has fared over the years. This institution is composed of a group of buildings and professors and students, but there is another part and that is the graduates. Why shouldn't a graduate be part of a university? There's a certain satisfaction in a small way of being part of what is going on at Macdonald and I've been able to do this, in part, because my wife Fran and I have lived in this neighbourhood for the last 15 years. "I first got involved by helping to



The 'Melody Macs': front row, l to r, George Hobson, Harold Blenkhorn. Bob Moreland backrow, l to r, Fern Dilabio, Russell Duckworth, and the late Ross Hennigar.



At Reunion '84, Harold Blenkhorn in conversation with Mr. and Mrs. G. Holmes (Eleanor Phillips, BSc (HEc) '49.

organize reunions for about three years; in recent years I've been working on a committee of the Alma Mater Fund and there's an annual phonathon that I've been participating in.

The New Campus

"The new campus is less of a shock to me than it is to many because I was living here at the time the changes took place. I think I was disappointed then and I still am. I find the new area too confining, though I think the staff have done an excellent job of doing the best with what they have, and they have maintained the high standards that this institution has always enjoyed. But there is no auditorium, no oval — the Main Building, the old dining room and the common rooms off it are gone. At a reunion several years ago George Hobson, who used to play the piano for the 'Melody Macs', was in the Centennial Centre and he looked in all direc-

tions but he couldn't find a piano. Who sits down at a piano in a common room these days and who gathers around to sing? As I said, those coming back after an absence of 20 to 25 years may be disappointed, but they do come back.

Reunions

"Reunions in the past few years have been good. Those that involved my own classmates of '50 were special to me and I also knew the overlapping Classes of '49, '51, and '52. Living in this area and driving back and forth to Ste. Annes and seeing the familiar tile-roofed buildings you might think I would be overtaken with great waves of nostalgia, but it doesn't happen. What does bring back the memories is when I meet the people, which means that people are more important than buildings.

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The Dion Years

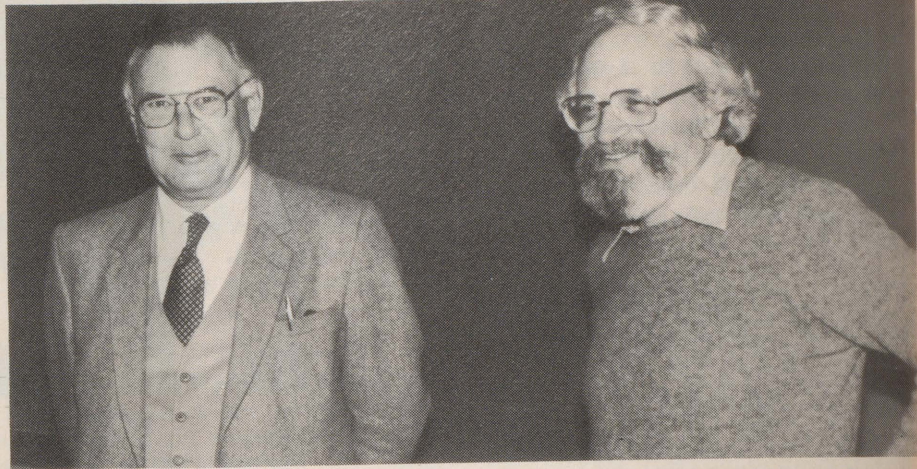
In the May 1984 issue George Dion and Howard Stepler discussed international development and Macdonald's role in that development. In this issue Emeritus Professor Helen Neilson, former Director of the School of Food Science, and Professor Gerry Millette of the Department of Renewable Resources join George Dion, who was Dean and Vice Principal at Macdonald College from 1955 to 1971, in a nostalgic look back at the Dion Years.

Helen Neilson I know you come back from time to time, George. I wonder whether you feel that the vitality of the faculty has lessened? What is your general impression of the college — I don't mean the buildings because there have been changes over the years that are not just related to our physical changes.

George Dion Some of us have a lot of nostalgia for the good old days. Distance, of course, makes the good old days even more attractive than they were. I must say I'm very impressed with the vigour and enthusiasm of the Macdonald group and the continuation of the loyalty that both the staff and the students have for the institution which makes it obvious that there is something intrinsic in Macdonald College that is separate from the old bricks and mortar and red roofs.

Helen Neilson I agree. That special something has to be due to the relative smallness of our educational institution and the close contact that the staff and students have with each other. They can identify as a group more than they would on a very large campus.

George Dion When I meet with Macdonald people overseas — and I meet quite a few — I'm continually struck by the close ties. Just 10 days ago in Bujumbura, Burundi, I met a Dutchman, Dirk Akkerhuis, who graduated in 1969, and he particularly wanted to be remembered to the people in soils whom he regarded as his personal friends. There was much more than a professor-student relationship. I also met John Ondieki who is acting director of research in the Ministry of



Earlier this year George Dion, left, came down from Ottawa to talk to a group of Professor Gene Donefer's students.

Agriculture in Nairobi. John is a Kenyan who did a Master's degree ('65) in Plant Pathology at Macdonald. You know, these associations almost give me an unfair advantage as we are already colleagues!

Gerry Millette The staff have often taken a personal interest in individual students and have helped them out with financial or academic problems or simply by constantly encouraging them. I know that one of my own sons was urged on by Bob Broughton. "We can't let that boy go to waste," he said. I've been closely associated with Bob Broughton for many years, and if there is anyone on this campus that is really going all out for the students and working 18 hours a day, it is Bob.

Helen Neilson We had a letter recently from a graduate telling us that because of a particular professor's help the writer was trying in her own way to reciprocate for the help given her. In the past students lived, worked, and relaxed together and saw each other in the dining room every day, which was certainly a contributing factor in promoting a clan feeling, but it still exists today with a commuting group. Somehow or other the link between staff and students is still there, and students realize that the staff are doing some very worthwhile projects.

George Dion It is relatively hard for students to go through here without being conscious of some of those

research projects because, as you say, they get involved professionally and emotionally with the place.

Helen Neilson They catch something of the vision. In one of his last speeches Dr. Brittain spoke of the vision of worthwhile things that can be done, and I guess the same can be said for the staff. How would you sum up your time here?

George Dion I always say I spent 17 years in the Dean's office and 15 were the best years of my life. The last were the worst two, but we can forget about them. I think the thing that made my time here so pleasant was that I refused to take the job seriously. The function of the Dean, as I saw it, was to assist other people to do what they wanted to do, not to tell them how they should do the job. I had a professor come to me just after I had arrived here and he said, "I'm the chairman of such and such. Have you any instructions for me? Have you any philosophies about the way I should carry out my duties in this department?" I looked at him for awhile and finally I said, "If you don't know how to do your job better than I do then I've got the wrong man on the job," and shook his hand and sent him away. There was no way that I was going to decide what other people should be doing.

One of the things that made it so easy for me was the very happy relationship with Mr. and Mrs. Walter Stewart. I think they may have found

Dr. Brittain a little bit intimidating, and when this young buck arrived on the scene they were comfortable with me, because they rapidly gathered that I was a little intimidated by them and they liked the change.

The fact that there was money in the Dean's fund which could be used for the improvement of Macdonald College as the Dean decided was a great thing. If you, Helen, or Gerry, or John Moxley, for example, said "I have a good idea, how can we get it started?" we could consider it. Most things didn't cost very much money, and you could start something for \$800 to \$1,000. It made it very easy for me to be a patron. I didn't have to say "no" if the idea had the germ of good sense in it. If it was a sensible thing to do and I never insisted — I think others would agree — that there was only one right way — if you were going to do it, then we had better do it your right way — if I was going to do it, then we had better do it my right way.

I was always prepared to tell people what I thought, sometimes with a little too much force, perhaps. As he left my office one day I remember Haddon Common saying, "You know a lot of us around don't always agree with what you say and do, but we're not confused about what it is you are trying to do."

Gerry Millette We got used to George's philosophy and his mottoes. About three years after I got here in 1964 I told him that the provincial government was offering me a job with lots more money and so forth. He looked at me. "Gerry," he said, "are you trying to pry more money out of me." He said, "if you are not in demand outside then I'm not interested in you." That was the end of it. I stayed. He said, "I may not have the best paid staff but I have the most contented one." One of his mottoes that I have used very extensively — it has been most useful to me — is "Never raise the question unless you are ready for the answer."

Helen Neilson One that he taught me was "when you have a difficult situation, always give them a choice — between two difficulties!"

George Dion Gerry is one of the people that I am rather proud of. Gerry made it obvious even before he came back to Macdonald — he is a graduate — that he didn't like bosses and he maintains that he still doesn't like

bosses. In spite of that he has stayed with Macdonald College for 20 years and has contributed a great deal.

Do you remember, Helen, that in the later years of Dr. Brittain's time he had relatively little patience for wasting too much time on administrative and faculty business. If there was a fast way to do it, then that's the way it was done. I was told that the standard faculty meeting was about 15 minutes, but I found that people wanted to be involved, they wanted to talk, and they wanted to be heard.

Helen Neilson Before 1955 faculty meetings were just for full professors, associates, and chairmen. Sessional lecturers, lecturers, and assistant professors were not included according to university statutes and, therefore, did not have a voice. You changed that — it was very democratic — and everybody came to staff meetings. Those years of expansion at Macdonald were great. We could see the future of the college developing in a way which was acceptable and pleasing to us. The committees were always enthusiastic; they were not just committees doing a chore.

George Dion There was some agonizing, too. I remember that when we reached the end of the DeLong era — a man who was probably the best soil chemist in Canada — he was a member of the chemistry department, not a soils department. The thought was if we were going to start a new era with soils staff, then for their own self esteem they needed a soils department. In those days, with F. Cyril James as Principal, if you had a good case and it didn't cost anything, you could easily establish a department on the basis that the chairman didn't get any more money and budgets came out of existing departments in any case. The only expense involved was the changes in the calendar. Later the Department of Renewable Resources absorbed Soils.

I was thinking back to those days when I was doing such things as amalgamating poultry and animal husbandry and nutrition into animal science. There were people problems; it wasn't all easy!

Helen Neilson For many years we couldn't change the curriculum. People in Botany felt a whole year of

botany was essential for everybody going through Macdonald and a whole year of zoology was also essential. It took years before we could give a general biology course.

George Dion Certainly a lot of evolution in the curriculum has taken place.

Helen Neilson With dynamic subjects such as we have here change is inevitable.

Gerry Millette I worry that we may develop a tendency to over-specialize. We have removed botany and zoology. Might we also forget about chemistry and physics, for example? Are we going to become a school of technology. The basic function of a university is to teach students how to think. Facts and figures come after that — that's technology. The major difference between an institute of technology and a university is that at an institute you learn how, when, and where to operate technical apparatus and at a university you learn to create it. Even among our students, unfortunately, if you teach them a subject where they have to think, they don't like it. Give them facts and case studies. That's all they want, and I resent it.

I give a course in land planning where I refuse to give case studies. I teach basic philosophies — how to approach land planning. I have been teaching this course since 1975, and I have just found a decent book published in 1982 that comes close to what I think is the basic philosophy of land planning. Everything else is case studies.

George Dion One of the things that I would insist on is that every professor and instructor should produce a textbook for his course. It should begin where the course begins and end where it ends.

Helen Neilson You're right. It is a pity that we weren't into the writing of textbooks years ago because we often have to rely on American texts which are not always appropriate for use in Canada.

Changing the subject, I would like to recall an amusing incident that involved George. He phoned me one day because he had a woman in his office who was going to give some scholarship money. When I saw the woman I realized that she had been

around before — in several capacities — usually offering us different things. She was very convincing, nicely spoken, well dressed but, unfortunately, not too “well”. I excused myself, saying that I had to make a phone call, and asked Helen Harrigan in the outer office if I could use her phone. I phoned George and told him the story and he was great. He said that it was very nice that she had come to us but felt that perhaps she was aiming at the wrong group out here and suggested she go and see a certain professor on the downtown campus who was known for being terribly pompous — not one of our favourites! The woman went off quite happily. We don’t know whether she ever went downtown!

George Dion The students sometimes didn’t know who I was and I remember walking through the arctic circle one time while the education people were still here. It was winter time and this particular couple was standing all wrapped up in each other with their coats open around each other and they were canoodling away like mad. I stopped and looked at them from about five feet away and finally I asked, “are you two married?” The girl looked up and said “no” and I said, “well don’t you think you should be?” and went on walking. I can also tell a story that involved Helen and I. Helen came into my office one day and said that there was something that I should know. Obviously this was going to be a little painful but I said “go ahead.” She told me that the staff had learned to stay out of my office late in the morning because I was a little short tempered but said, “that’s easy to fix. Your blood sugar is probably low and your tolerance for damn fools is not what it is earlier on in the day. If you make sure that Mrs. Cunningham gives you a cup of tea or coffee with some sugar in it, everything will be normal.” I thanked Helen very much and we operated on that basic from then on, and apparently more successfully!

Gerry Millette I’m getting ready for early retirement — how are you enjoying yours?

George Dion When people ask me how I am enjoying retirement I say I have never retired. I am still working and I go to my office, which is directly

across from CIDA, every day. It’s a very informal operation, and there are people that come in just for the hell of it. As you know I worked with CIDA full time from 1971 until 1979 but I was never a public servant: I was on the McGill staff or on leave of absence so I never paid much attention to obeying government rules. Late every Friday afternoon some of us would get cups of coffee and I would supply some rum and we would sit around and chew the fat. It became popular enough that we now have it formalized. A little group meets on Friday afternoons in my office. The call to arms is a green flashing light that shines out of my office right at CIDA. The time is known as the attitude adjustment hour; the acronym is pronounced aah!

I also make wine which is called *Entre Deux Églises* because our home is situated between two churches — with no congregations. Wendy will be retiring this fall from ADRI in Agriculture Canada and I suppose she will be thinking up things for me to do. When people ask me when I am going to retire and I say, “you mean stay home and paint the house?” The answer is

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“Quite a number of my classmates have retired. This is to be expected since many of them were war veterans who started their university education in their late twenties or early thirties. In general the Class of 1950 has given a good account of itself. I hesitate to name names in case I leave some out but many of our numbers have distinguished themselves as scientists and academics. I will mention two classmates: Dave Hopper and Perce McKinley who received honorary doctorates from their alma mater for outstanding achievements. Dave was recognized for his contributions to global agricultural developments and Perce for excellent work with the Food and Drug Directorate.

“The present format for reunion was arrived at by trial and error. We have tried several things and I think we have reached a format which is excellent. The noon luncheon, which was instituted some four or five years ago, adds another occasion where people can meet. It has proved to be a great idea as it brings people together at noon on Saturday and tends to keep them together.

“never.”

But thinking of Macdonald, there are a couple of things I’m particularly proud of. I think that the things that John Moxley and his DHAS team have done to take Macdonald College into the countryside have been one of the things that have kept us alive. The backing that we had from the agricultural community in Quebec when the crunch came in 1970 was marvelous. John Moxley has established the best service of its kind in the world, partly because it is newer than the American ones and, therefore, he could profit by their mistakes, but he has certainly been imaginative and innovative and has earned some honours which I think are very richly deserved. Those fieldmen that Norm Campbell has out in the countryside are the best advertisements for Macdonald College that we could have.

On a lighter vein, another thing that I am really proud of is changing the Dean’s tea — the reception to welcome new staff. The first year there was only tea and for the next three years there was also tea; but somehow the demand disappeared.

Music

“I don’t play the guitar very much these days — the callouses are gone from my fingers and I’m busy with other things. I don’t listen to modern music — I blocked it out of my mind when Elvis came along, and I haven’t consciously listened to it since. I have a little collection of records of music from 30 to 50 years ago. It is an overstatement to say that there isn’t any good music being produced today, but I go for what is melodious and noise isn’t a substitute for melody, although some people seem to think that it is.

“I have a house with a big lot that always requires something done so I keep digging and pruning and sawing and building and painting. That pretty well takes care of my leisure time.

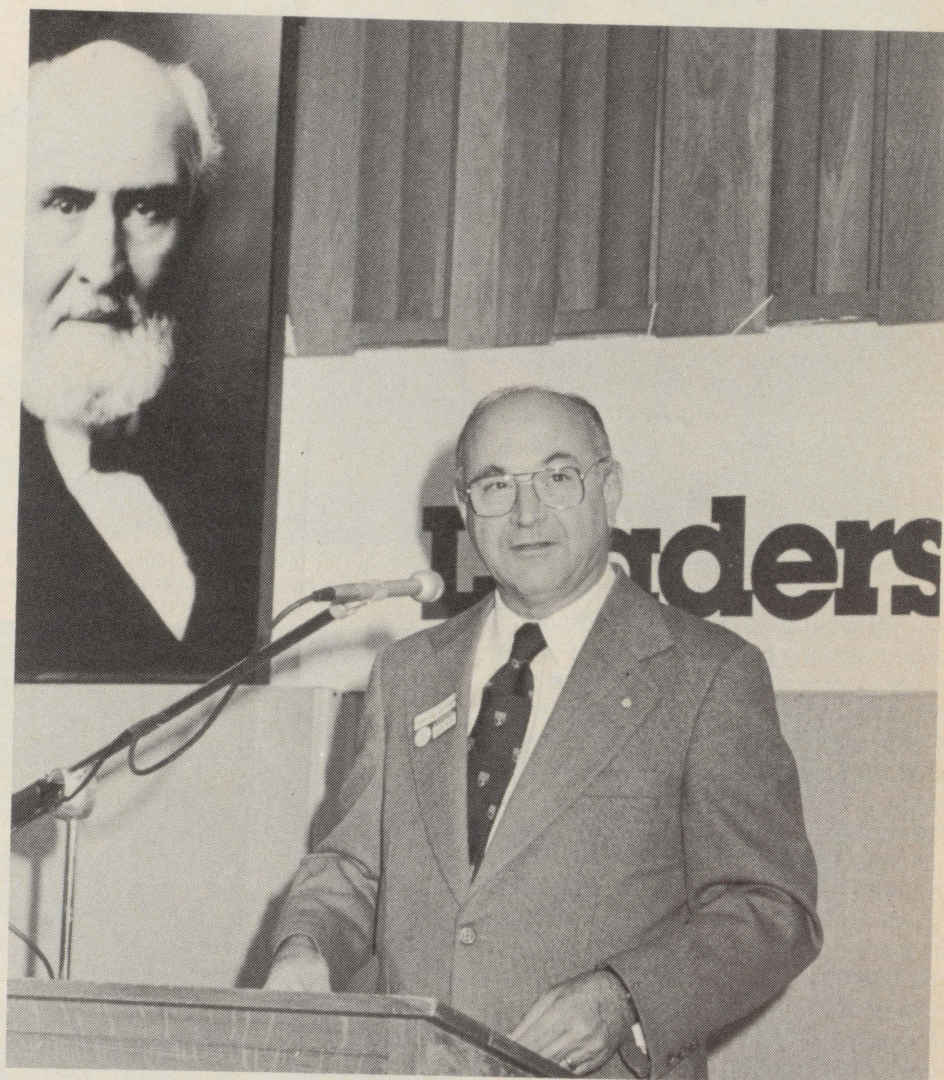
“I have to be pleased that my daughter will next year attend John Abbott CEGEP using some of the buildings that I knew as a student but, unfortunately, although she doesn’t know what she wants to be she knows what she doesn’t want to be and it will apparently not involve science — and Macdonald.”

LEADERSHIP DAY: REFLECTION OF MACDONALD TRADITION

Leadership Day, Saturday, September 29, 1984, in combination with the grads Reunion program, offered an opportunity for members of the community, some of whom were alumni, to experience a stimulating and challenging program.

The early morning registration flowed to the Plenary Session where Dr. Lloyd welcomed graduates and friends from coast to coast, the United States, and other parts of the world. It was Chancellor de Grandpré who was impressed with the early turnout knowing the extent of the Reunion Class dinners which had been held the night before. He observed, "The best tradition of this college is a reflection, in large measure, of the people who have served it. It is a tradition of outstanding teachers, staff, students, and volunteer leadership." He recalled that Sir William Macdonald had been one of the finest benefactors of McGill. His legacy of service to the community had been taken up by the Walter Stewarts and, in turn, by their son, the late Dr. David Stewart and his wife, Liliane. "Although the times and circumstances have changed, each one demonstrated the determination that students at Macdonald should have the staff and resources needed to master knowledge and techniques vital to our social fabric in the home, the school, and the farm (Agriculture and Food Science). Each one has made a sacrifice to achieve the Macdonald they envisioned. Their goal was to encourage mastery for service. The rest is history."

A series of seminars provided the forum for the guests to meet with the team of staff who are the nucleus of the college activity of the day. The seminar series was designed to accommodate a wide variety of interests led by Macdonald's academics with cooperation from the university community and the wider community it serves. Each of the seminar leaders and moderators brought into focus some of the fascinating and pertinent insights into the topics under discussion and they were met, in turn, with enthusiasm from all the participants, some of whom eagerly cross-examined the speakers during the question period.



"THERE IS ALWAYS AN OLD MACDONALD AND THERE IS ALWAYS A NEW MACDONALD. I am here to greet the new Macdonald of our day, and to hail the start of an era full of the brightest promise for the college," Jean de Grandpré, Chancellor of the University.

To provide an opportunity for spirited, informal discussion on the seminars and to hear more information about the plans for the university, the morning program culminated with a reception and a luncheon in the Centennial Centre Ballroom.

At the close of the luncheon, Dr. Lloyd reminded graduates that the special program in conjunction with Reunion was a further opportunity to keep all the graduates and friends aware of the plans for the college. He noted that, "In our determination to maintain excellence at McGill and Macdonald, there was a need to confirm a plan for the university's future. On this basis, the Board of Governors

took action and launched an historic capital campaign in September 1983 to raise \$61 million, the largest amount in the history of Canadian universities. As Hugh Hallward, Chairman of the Board of Governors, said at that time, "Our objective is to do better those things we already do well." Dr. Lloyd invited Principal Johnston to zero in on those major areas of need that touched on the college in particular. "To face the future," David Johnston noted there is an increasing and critical need for research in food production, distribution, and transportation." Part of the Macdonald response to this need is to develop the Macdonald Farm Project.

This new endeavour combines input from many disciplines in the faculty and reflects first hand knowledge of similar developments across Canada, the U.S., and Europe. "The plans of Roger Buckland, Rudi Dallenbach and their committee," the Principal reported "are a conscious effort to work for now and for the future with a purpose and not just for show. Their efforts, to date, have earned the enormous encouragement of advance support in the amount of \$1.5 million. This means that our dream for a renewed and remarkable teaching, research, and a farm practice facility at the college will be a reality."

The Principal referred to those areas where special funds have already been earmarked for the encouragement of the activities at the college including the new Chair endowed by Canadian Pacific — the first Chair in Biotechnology in Canada — the Weston Chair in Nutrition combined with the positive response of the staff to give support back to the college for projects that they believe in. Commenting from a different perspective, the Chancellor, Jean de Grandpré, who is also head of a multi-national Canadian enterprise, noted, "Times change. Gone is the oval, and Joe's, student uniforms, and other traditions. Even the campus, as many of you knew it, is in an advanced stage of redevelopment. However, as Principal David Johnston has said, 'the spirit of Macdonald is unchanged.' There is always an old Macdonald and there is always a new Macdonald. I am here to greet the new Macdonald of our day and to hail the start of a new era full of the brightest promise for Macdonald."

The Chancellor outlined the Key Volunteer Leadership that is spearheading the McGill campaign led by Fred Burbidge, President and C.E.O. of Canadian Pacific, plus Charles Bronfman, Charles Perreault, Rowland Frazee, Madeleine Saint Jacques, Vice-Principal Gordon MacLachlan, and Professor Bob Broughton on the Macdonald campus. He reported that gifts and pledges in hand had exceeded \$35 million after less than one year of the announcement of the program, which is an extraordinary accomplishment. He added, "I see a great future for Macdonald. It has done more on a slimmer budget base than many a college or university in the



Leadership Day drew a substantial group of people to the morning seminars presented by some of the Macdonald staff in the Macdonald-Stewart Building. Photos by Charles Fournier.

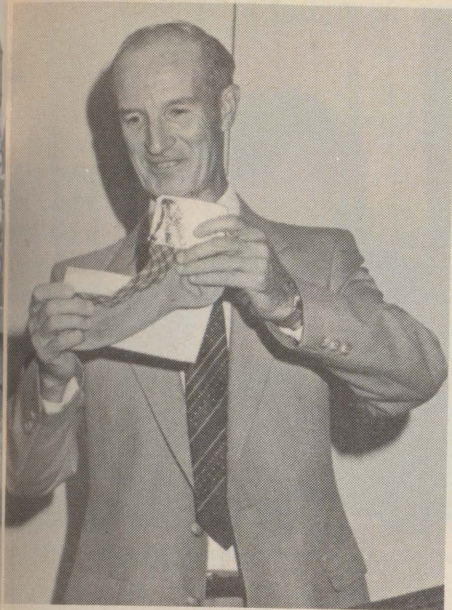


Professor Roger Buckland discusses plans for the new farm complex with, l to r, Wink Keeler, BSc (Agr) '66, Peter Finlayson, BSc (Agr) '63, and his son Gordon.

country. I suggest to you that this being the record of the past, future investments in Macdonald will yield a greater return than investments in any other area." Dr. Lloyd acknowledged the excellent cooperation of the university, together with the graduates Reunion committee in developing such a stimulating day of activity and enjoyment. He complimented the students who had cooperated in providing guidance to the campus visitors. He also reminded everyone of the special visits that were available in the afternoon to such areas as the Raptor

Centre, Brace Research, Institute of Parasitology, Pilot Plant, the renewed Stewart Complex for Athletics, Library and the Lyman Museum.

The purpose of the Leadership Day and the objective for the McGill Advancement Program can be summed up in the comments from Chancellor de Grandpré who said, "In the spirit of our finest benefactors, the objective is to strengthen Macdonald College not for its own sake but for what it can contribute to individuals who teach and study here and to serve society."



In true Scottish tradition the Class of '44 socked their money away and a handsome sum was presented to Vice Principal Lloyd by Vernon Heigh-ton during the luncheon festivities.



Among those celebrating their 50th anniversary were, l to r, Winnifred (Rusted) Bailey, BHS '34, Elizabeth Kemp BHS '34, Oswald Peck, MSc (Agr) '34, Virginia (Gardner) Peck, BHS '34.

MACDONALD BRANCH ANNUAL MEETING

Much of the spirit and enthusiasm generated by the Leadership Day activities carried on into the afternoon and evening as returning graduates prepared to take part in the 1984 Reunion events, beginning with the Annual General Meeting.

Breaking with tradition this year, the Macdonald Branch Annual General Meeting was held at 6:00 p.m. and attracted more than 50 graduates, spouses, and friends. The occasion was the culmination of Peter Knox's two-year term of office as President. Grant Ross succeeded him as the 1984-85 President of the Branch, assisted by James Wilding as Vice-President. Peter Knox was thanked warmly by the incoming President for his hard work and service to the Branch and was presented with a pew-ter tankard in appreciation.

Following the report by Larry Johnston, Chairman of the Nominating Committee, Grant Ross gave thanks to retiring directors Gloria Bishop and Gordon Anderson for their contribution to the college. Both directors are moving to Toronto to pursue their individual careers in the Queen City.

Vice-Principal Dr. Lewis Lloyd and Peter Knox replied to questions raised



D.G. Henderson, Dip '34, receiving a gold pin from Principal David Johnston during the lunch time honouring of the Class of '34.

by graduates on issues relating to the branch and the college. Led by Roger Buckland, Chairman of the Department of Animal Science, a lively discussion took place on some of the topics raised, including the *Macdonald Journal*, contributions to the A.M.F., and Macdonald ties!

The Annual Meeting concluded at 6:30 p.m. and was followed by the Dean's Reception held at the same location in the Centennial Centre. With 180 people in attendance, the reception gave graduates the chance to renew acquaintances before the final reunion event, the dinner dance.

REUNION '84 DINNER DANCE

The Reunion '84 Dinner-Dance brought together 150 Macdonald graduates and spouses for a delightful evening of memories and memorabilia. Sitting together at tables of 10, the classes enjoyed an excellent buffet featuring sides of beef and an endless supply of wine. The Reunion Chairman, George Eades (Agr '74), having disappeared earlier in the evening to possibly assist in the expected delivery of a third daughter — who finally arrived the following Wednesday — left the responsibility to welcome the guests to Bob Gales (Agr '68), his Vice Chairman. The newly elected President of the Macdonald Branch, Grant Ross (Agr '56), gave the toast to the 25th Anniversary Class of 1959. Janet Finlayson, now the College Librarian, replied for her class and Ann (Vine) Lamb received the 25th Anniversary pin, which was given to those in attendance. The Honour Shield for the greatest percentage of participation, which was won this year for the first time by the same class of '59, was received on their behalf from Dean Lloyd by Carolyn (Hollier) Fraser.

Graduates returned from many parts of Canada, the U.S., and overseas. Martin Lishman (Agr '54) won an engraved pewter mug for having travelled the further distance, Lincolnshire, England. Ethel (Moffett) Fulford (HEc '59) made it all the way from Jamaica and others returned from Washington, D.C., Tennessee, California, and Alberta.

During the evening, door prizes were won by a number of graduates whose ticket numbers were drawn from a box and presented by Hy Grisdale (Agr '49), who got the classes to dig deeply into their memories for their class cheers and to out-shout each other. Throughout the evening Hy was observed out-dancing everyone else as well! The '84 Reunion Class Chairmen were Barbara Dougherty (HEc '29), Elizabeth Kemp (HEc '34), Luella (McGregor) Dunbar (HEc '44), Dorothy (Welch) Sim (HEc '49), Frank Whitteker (Agr '49), Barbara (Belyea) Wilding (HEc '54), Janet Finlayson and Dorothy (Hodgins) Sager (HEc '59), Cameron Clarke (Agr '69), Jim Gendron (Agr '74), and Jack Sadler (Agr '79). Special mention must go to the classes of '54, '49, '44, and '34 for their enthusiastic attempt to out-number the Class of '59



The Class of '59 received the Honour Shield for best attendance at Reunion. Carolyn (Hollier) Fraser received the Shield from Dean Lloyd.

MACDONALD HONOUR SHIELD

There was keen rivalry between the classes of Agriculture & Home Economics '59 and '54 this year for the 1984 Honour Shield, awarded annually to the class with the highest percentage of graduate participation.

The class of Agriculture & Home Economics '59 won the day with 39 per cent of graduates in attendance followed closely by the class of '54 with 36 per cent. The third percentage attendance was Agriculture & Home Economics '44.

Our thanks go to all class chairmen who contributed to the success of the high attendance rate.



Some of the Class of '69 gather for a photo session during the Reunion Dinner Dance.

for the Honour Shield. Among many others seen at Reunion were Christine (Rudinsky) Casselman (HEc '69) with her husband Steve Casselman (Agr '68) who was overheard hatching class plans for the 1988 reunion. Mrs. K.M. DuPorte (Agr '36) wife of the late Professor DuPorte, returned to meet with graduates and friends throughout the day, as did Caspar Warnaars (Agr '62), William Kydd (Agr '40) and his wife Katherine (Buchanan) (HEc '41).

To conclude briefly, undergraduates depend on the college to educate and prepare them for the future. But upon graduation the roles change and Macdonald depends upon graduates to provide special support in the form of personal interest and involvement which help to keep the college as a first class institution for teaching and research, and a vital force in the community, in this case, spread around the world.

WOMEN'S CENTENNIAL

A year-long series of events have been planned to celebrate the 100th Anniversary of women being admitted to McGill University. Although this is mainly a downtown McGill celebration (Mac is only 79 years old!), we have joined in the festivities with a wine and cheese reception last September and are also part of other on-going events.

Close to 200 graduates from agriculture, food science, and education as well as former academic and support staff joined present members of the Mac community in a wine and cheese reception in the Macdonald-Stewart Building on September 28. One of the highlights of the evening was the presentation by Dr. L.E. Lloyd, Vice Principal of Macdonald College, of gold pins to a group of teachers from the Class of '34. These women had formed a "Mac Club" years ago and have kept in close touch ever since. At the reception, we also welcomed three generations of Mac students from one family, the present Dean of the Faculty of Education David Smith and retired Dean Wayne Hall, a member of the Class of '23, and many more members of the Mac clan.

Another Women's Centennial event is "A Centennial of Costume," a display of women's costumes 1884-1984 at the McCord Museum in Montreal. Included in the display are uniforms once worn at Macdonald, samples of early work done by students in the School of Household Science, and a vintage photo of nutrition students. This display will be at the McCord until June 1985.

A special highlight of Women's Centennial is the publication of the book "A Fair Shake," a collection of autobiographical essays by McGill women. Included in the collection are contributions from Emeritus Professor Helen R. Neilson, former Director of the School of Food Science, and Dr. Dorothy E. Swales, Emeritus Curator of the McGill University Herbarium which is located on the Macdonald campus. The book sells for \$16.95. A variety of other souvenir items are also available. For further information you may write or telephone the Women's Centennial Committee office at: 3450 McTavish St., Room 10, Montreal, Que. H3A 1X9, 514-392-8048.



Enjoying the wine and cheese reception were three generations who have attended Macdonald, l to r, Judy Coffin, BSc (HEC), '86, Trinkie (Hooker) Coffin, BSc (HEC) '62, and Willa (McNeil) Hooker, Teachers Diploma 1930-31. Mrs. Hooker lives in Ormstown and the Coffins live in Pierrefonds.



Members of the Teachers' Class of '34 — and the Mac Club — with the present Dean of the Faculty of Education David Smith included: Jean Merrill, Ruth Clapham, Margaret Mellor, Jean Bird, Dixie Clarke, Gwen Glencross, Guncor Edmonds, and Isabelle Holubek. Photo by Charles Fournier.



Liz Jennaway-Eaman, left, and Shirley Weber, right, of the School of Food Science with Rose Bushnell, Teacher's Class of '23. Photo by Charles Fournier.

newsmakers

on campus

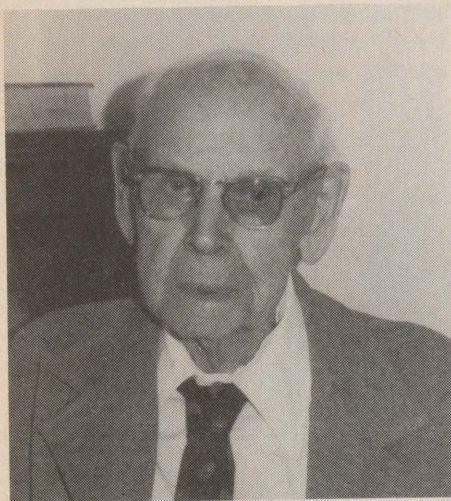


Well known wildlife artist Robert Bateman was on hand last October 15th to officially open a new breeding facility for Peregrine Falcons at the Macdonald Raptor Research Centre. Here André Lavigne, the MRRC's Public Education Officer, prepares to transfer CIA, a two-year old female Peregrine Falcon, to Mr. Bateman's waiting glove. Photo by John Lavoie.

DHAS had a group of International Agriculture writers from the five continents visit the facilities in August. This was a group of writers invited to Canada by Trade and Commerce to attend the Holstein Conference "Bench-mark 100," which was held in Toronto.

off campus

HAPPY BIRTHDAY!



GORDON WILLIAM WOOD, B.S.A. '11, celebrated his 100th birthday on August 5, 1984. Born on a dairy farm five miles east of Lachute, Que., Mr.

Wood attended local schools and worked on the farm until 1907 when Macdonald College was ready to receive its first students. Gordon Wood heard about the new agricultural college while attending a meeting in Montreal of the Canadian Ayrshire Breeders Association and promptly enrolled as a member of the first class. He is the sole surviving member of that class. After graduation Gordon Wood joined the staff at Macdonald, becoming the first agricultural representative in the province of Quebec. From his salary of \$1,000 he was required to provide himself with a horse and buggy for travelling through the countryside to cover his three-county territory.

In 1913 he was appointed to the staff of the Manitoba Agricultural College in Winnipeg which was at that time separate from the University of Manitoba. He had a long association with the college and university in the field of animal husbandry and science. In 1924 Mr. Wood went to the University of Wisconsin where he did postgraduate work and received his Master's degree. From 1918 until his mandatory retirement in 1949 he was head of his department at the University of Manitoba.

After his retirement from the University of Manitoba, Gordon Wood moved to Ontario. A visit to the Ontario

Agricultural College in 1950 led to his being invited to join the staff there. He spent the next four years at Guelph. He now resides at the Albright Manor in Beamsville, Ontario. (Information and photo courtesy *Lincoln Post Express*, Beamsville, Ont.)

ROBERT W. SIMPSON, Dip. Agr. '39, received an Honorary Life Membership in the Canadian Jersey Cattle Club at the Annual Meeting held in Sherbrooke, Que. He farmed the Heathfield Farm in Richmond, Que., for 23 years and for 11 years he was President of the Quebec Jersey Club, later becoming Secretary and then Secretary-Fieldman. He arranged calf rallies, picnics, encouraged breeders to keep registrations and transfers up-to-date and has always helped to promote all Jersey related activities.

BRUCE M. TRENHOLM, BSc (Agr) '47, received the Master Breeders Award at the March 1984 Centennial Meeting of Holstein Canada which was held in Ottawa. Although Mr. Trenholm dispersed his herd in the '70s, he still participates in Holstein business and assisted with the Centennial celebrations in Nova Scotia. After dispersing his herd, Bruce Trenholm worked on a dairy project in the Barbados for two years. At present he is Ag Rep for Picou County, N.S.

PAUL C. EATON, BSc (Agr) '50, Assistant Director of Extension Services for the Nova Scotia Department of Agriculture & Marketing, retired on July 31, 1984, after 34 years of employment with the Department. Mr. Eaton is a charter member of the Canadian Society for Extension. He also served in many capacities for the N.S. Institute of Agrologists, including the positions of Vice-President and President. For the past two years he has served as the province's representative on the New England Governors Maritime Premiers Committee on Small Scale Agriculture. He will continue to act on this committee.

MURRAY D. McEWEN, BSc (Agr) '53 has been appointed as a Director of Redpath Industries. Mr. McEwen is Vice President of Redpath Industries Limited and President of the Redpath Sugars Division.

GLEN S. ELLS, BSc (Agr) '55, president of the Nova Scotia Cattlemen's Association, was elected 2nd Vice-President of the Canadian Cattlemen's Association last March. Mr. Ells is also a member of the Policy Advisory Committee for CANAGREX as are Mac graduates **ELLIOT KEIZER**, BSc (Agr) '69, Department of Agriculture and Rural Development, New Brunswick, **DAVE FAULKNER**, BSc (Agr) '68, Department of Agriculture and Forestry, Prince Edward Island, **GORDON KINSMEN**, BSc (Agr) '49, Department of Agriculture and Marketing, Nova Scotia, and **GRANT COLPITTS**, BSc (Agr) '65. Leigh A. Colpitts & Sons.

GORDON MITCHELL, BSc (Agr) '67, is the new Ag Rep for Muskoka and Parry Sound, Ont.

ANTON SCHORI, BSc (Agr) '67, has recently joined Monenco Consultants Ltd., Calgary, Alta., as Senior Supervising Soil Scientist.

JAMES ALBRIGHT, BSc (Agr) '68, MSc (Agr) '71, is Product Manager, Montreal, for Canadian Liquid Air Ltd.

GINGER STONES, BSc (Agr) '77 has been appointed Pollution Control Officer for the Department of National Defence in Ottawa. She has held this position since August '83; previously she was with private industry in the Montreal area.

CLAUDE GERALD, BSc (Agr) '78, has just completed his Masters at the University of Aberdeen in Scotland. While visiting friends and professors on campus in early October, Claude Gerald said that he had found his stay in Scotland most interesting and would like to return some day. Like Macdonald, the campus at Aberdeen was small and he had an opportunity to get to know everyone. At the end of his travels Mr. Gerald planned to return to his job with the Ministry of Agriculture in Montserrat, West Indies.

CHRISTIAN GROTHE, BSc (Agr) '78, is the new farm management specialist at New Liskeard, Ont. He will be serving the Temiskaming district.

JACK VAN ROESTEL, BSc (Agr) '80, has been appointed to the position of Soils and Crops Specialist for central

and eastern Nova Scotia. He recently completed his MSc (Agr) degree at the University of Guelph.

With Radio Noon

"I have a scholarship to do a nine-month apprenticeship in agricultural journalism and have been working with Marc Côté on the farm and food segment of Radio Noon since early September and will stay until Christmas. I help out on all aspects of the show by doing research, interviews, editing syndication tapes, writing stories, and broadcasting. In January I will trek out to Saskatoon to write for *The Western Producer*.

"After graduation in 1980, I moved to Ottawa and worked for the Canadian Federation of Agriculture for a short time. In the ensuing years I became more and more interested in journalism and took courses and began to write for a community newspaper.

"I found out about the Melville-Ness Scholarship from a notice in one of the Agricultural Institute of Canada's publications. The scholarship, although administered by the Saskatchewan Institute of Agrologists, is open to all agricultural graduates right across Canada. It gives the candidate the choice of either getting a journalism degree or doing an apprenticeship. Since I already have a BSc, I opted for the more practical apprenticeship program. After I finish the program, I hope to get some type of position in either radio or print.

Elaine Vininski, BSc (Agr) '80

In memory of George Tait who died September 14, 1984. A contribution has been sent to the Macdonald Branch of the McGill Graduates Society with fondest remembrance of a good and dear friend, roommate, and classmate. **Hamilton Marshall**

DR. ROBERT I. BRAWN, Director of Research and Development for Funk Seeds, Division of CIBA-GEIGY Canada Ltd. and a former professor at Macdonald College, has accepted a transfer to the company's headquarters in Switzerland to become a member of the R&D Seeds' Subdivision working on special projects. Mr. Brawn will be based part of the year in Basel, Switzerland, where he will be acting as a consultant assisting both the head

office and other countries with their research projects. The other part of the year, he will be based in New Zealand where CIBA-GEIGY has a winter nursery which was originally started by the Stewart Seed organization. Among the countries using the New Zealand nursery are France, Germany, and Canada.

deceased

BENJAMIN B. RICHARDSON, BSA '13, at Woodstock, Ont.

WILLIAM JOHN REID, BSA '20, at Montreal, Que., on April 8, 1984.

STEPHANE BOILY, BSA '22, at Montreal, Que., on August 1, 1984.

ELEANOR (McTAGGART) ALLEN, DipPE '24, at Goderich, Ont., on June 22, 1984.

AILEEN (SMALL) CRAWFORD, DipPe '26, at Punta Gorea, Florida, on June 8, 1984.

GEORGE McLEOD TAIT, BSA '28, at St. Lambert, Que., on September 14, 1984.

CATHERINE I. (MACLEOD) DECHMAN, BHS '29, at Hamilton, Ont., on July 15, 1984.

EILEEN McKYES, DipPe '29, at St. Sauveur, Que.

RAY G. WEBBER, BSA '31, at Halifax, N.S., on June 17, 1984.

OTTO NORMAN HUGGARD, BSc (Agr) '38, at Fredericton, N.B., in March 1984.

JOHN WILLIAM GARLAND, BSc (Agr) '49.

PHILIP ALLAN WRIGHT, BSc (Agr) '50 at Guelph, Ont., on August 30, 1984.

MICHAEL RICHARD PAZUR, BSc (Agr) '53, at Ruthven, Ont., on May 15, 1984.

MATTI J. PIRHONEN, BSc (Agr) '64, at Stoney Creek, Ont., on Aug. 9, 1984.

ROBERT L. PUXLEY of Hudson, Quebec, on September 29, 1984 at the age of 87. Mr. Puxley served as Secretary of Macdonald College from 1957 until his retirement in 1962. Prior to coming to Macdonald, he had been assistant to the comptroller at McGill.



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